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ARE OUR COLLEGES PLAYING POOR?

BY WILLIAM B. MUNRO

I

SOME two years ago my distinguished colleague, Professor William Z. Ripley, told the readers of the *Atlantic* something about the faulty financial methods of the big business corporations. He called attention to the concealment of assets, the juggling of profit and loss accounts, the omission of proper allowance for depreciation, the failure to provide adequate reserves in some cases, and the frequent withholding of information which the stockholder ought to have. The devious ways of Wall Street were interpreted to Main Street in vigorous and colorful phraseology, with plenty of apt illustrations. These disclosures came as a surprise to the financially unsophisticated, but they were made in the interest of better business ethics, and even the corporations may be grateful for them in time.

I have sometimes wondered why big business, when its shortcomings are thus exposed to the world by college professors, does not reciprocate by sending some meticulous fellow to probe the financial methods of the colleges in quest of a *tu quoque* alibi. There would be no difficulty in finding a lot of them, for there is hardly a single off-color practice in corporate financing that

does not have its counterpart in our institutions of higher education. College professors, as a class, are quick to see the mote in the other fellow's eye. They take the righteousness of their own institutions as self-evident. In their courses on public finance, business organization, and accounting, they will dissect a municipal budget or a corporation balance sheet with caustic comments, forgetting that criticism, like charity, can sometimes make its best beginning at home.

Let me give an illustration. In the latest financial report of a certain American university there is a list of invested funds which constitute the endowment. It includes a block of General Electric common, nearly sixteen thousand shares, the value of which is given as one dollar! The actual value of that stock, as a matter of fact, is more than two million dollars. It is worth more, indeed, than the entire endowment of many small colleges. For the year covered by the financial statement, the dividends from this stock amounted to over \$47,000. The treasurer points with pride to the fact that 'the net income of the general investments' amounted to more than $5\frac{1}{2}$ per cent for the year. No wonder, when a single dollar in book value yields a return as

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stated above! But is it in keeping with collegiate ideals of truth and light that the university's financial reports should provide this particular brand of verity and illumination?

The foregoing illustration is by no means unique. You will find large holdings of United Fruit carried on its books by the same institution at less than \$40 per share when the true market value of this stock is nearer \$140. You will find Electric Bond and Share common, in big blocks, set down at a merely nominal valuation, when everyone knows that its value is substantial.

Nor is this college different from many others. Its financial statements are clearer and more candid than those issued by the majority of academic institutions; its treasurer is a man of the highest financial skill and competence. The practice of underfiguring assets, and thus showing an artificially inflated return on investments, is common in college financial statements everywhere. It is sometimes carried to a point where the announced figures of total endowment are quite misleading to the alumni and to the public.

There is a reason for this. Figures of modest proportions are desirable in support of the perennial assurance that college endowments are pitifully inadequate. And of course it is much easier to demonstrate this inadequacy of productive resources when book values are deflated 30, 50, or in some instances 100 per cent. It will be urged in extenuation, no doubt, that the college authorities like to be on the safe side and hence prefer to carry investments at what they cost, or even below cost, rather than at what they are worth; but a business corporation that does anything of the sort is likely to find itself charged by its professorial critics with a concealment of assets

for the benefit of the insiders. Financial statements, by whomsoever issued, should aim to give a true portrayal of the actualities. If not, the only ethical ground for issuing them disappears.

Of course there is a reason why the colleges are not always ready to practise what they preach for the benefit of others. They claim to be engaged in the pursuit of truth, but that is not the whole story. The colleges are also engaged, with equal ardor, in the pursuit of funds. They want more endowment, and there are two good talking-points in their quest for it: namely, that the college authorities have great financial competence in handling the funds already committed to their care (as is proved by the high net yield), and, second, that if additional benefactions are obtained they will be made productive with the same efficiency. To this end, the invested funds are often juggled down and various assets written off. The valuations are shrunk to a point where they will not jeopardize the success of the college when it passes the hat among its alumni.

For the college must bear the protective coloration of poverty, no matter what its opulence. The exigencies of an endowment campaign sometimes call for a moratorium on the promptings of the academic conscience, but he who would be successful as a mendicant must not jangle the gold in his pockets. So the sum total of collegiate resources is neatly whittled for insertion in the president's report, and then the need for increasing it by new subscriptions is assiduously proclaimed, in season and out, by those loyal house organs known as alumni bulletins. Their job is not merely to sell the college to the alumni and the public, but to keep it sold — which is a more difficult task. Very often these alumni publications

are subsidized from the college treasury, from the tuition fees or other income, and the amount is hidden in the regular college budget under the head of 'publicity' or 'promotional expense.'

Looking through the reports of college treasurers, one is impressed, moreover, by the frequent examples of inadequate diversification. It will be conceded, I think, that trust funds should not be heavily thrown into investments of any one type, or concentrated in a single locality. In the interest of safety there should be a reasonable spread. Yet there are some colleges which have invested from two thirds to three fourths of their entire endowment in real-estate mortgages, with a very large proportion of these mortgages in their own immediate neighborhood. The danger of a serious financial reverse, in such cases, is by no means negligible — especially where farm mortgages bulk large in the list.

Safety is sometimes sacrificed to yield in other respects. The investing is usually directed by a finance committee of the board of trustees, with the college treasurer as a member. These men, although not slothful in business, have their own financial idiosyncrasies, or, what is more to the point, their own respective financial affiliations. They are directors of banks, railroads, public-utility concerns, or industrial organizations. If you keep the personnel of this committee in mind when you glance through the list of college investments, you will discern the possible explanation of a good many things, including the retention of some holdings which are obviously speculative or otherwise not suitable for such a list. If they were held by a bank, they would promptly come under the examiner's censorship.

II

Then as to deficits. It is sometimes said that a college without a deficit is a rarity. That statement needs qualification. It is a rare college whose operating balance does not stand in the red at the end of the fiscal year, to be sure; but this does not necessarily mean an excess of current expenditures over current income, as in the case of business corporations. I have known a university to announce a deficit at the end of a year, and to plead urgently with its alumni for contributions on that account, when the total income actually exceeded the total expenditures for that year by several hundred thousand dollars. The deficit, as a matter of fact, was in *unrestricted* income only. It meant that the institution did not have too little money, but too little leeway in the spending of it.

In other words, a college deficit is sometimes a bugbear which is conjured up by the comptroller's office as a spur to professorial economy and to alumni generosity. In accomplishing this it becomes necessary at times to employ some of the subterfuges which holding companies have devised for masking their true financial operations. One method is to charge against unrestricted income various expenses which could have been defrayed out of gifts for designated purposes, leaving the latter to pile up by the accretion of interest. Another plan, even more common, is to charge against current income a lot of items which are in reality outlays on capital account, and which would be so dealt with by any well-managed business organization. The whole cost of a new heating plant, or of reconstructing some old building, or the money expended for additions to the campus, or for the acquisition of permanent equipment — such things

are sometimes debited against the income of a single year. There are many ways of getting the balance on the wrong side of the ledger when that consummation is desired.

And it generally is a desideratum in college accounting, because a surplus is one of the most embarrassing things that a college can possess. It is, in effect, an invitation to every head of a department to come forward and raid the treasury. Just announce that any college has money unappropriated, and within a few hours the president can count upon finding most of the faculty in his waiting room. Promotions, additions to the staff, more equipment — all sorts of things will be pressed upon his attention. Every college professor believes that his own branch of work is by far the most important in the whole institution. That is the glory of his vocation. So long as there is an annual deficit, he may restrain his importunities for expansion; but not when he hears that there is a credit balance in the exchequer. Before the burning ardor of faculty enthusiasm, even a large surplus will fade away like snowflakes in June. In this fading process, however, there is certain to be resentment engendered among those who have failed to get their share. Better it is to have no surplus at all — and it is so arranged by most college presidents who know their business.

III

The almost complete dissociation of contributions from control, and the vesting of ultimate authority in the hands of those who have provided very little of the capital stock — these are two features of corporate reorganization which have drawn much criticism from professors of economics during the past few years. But it is not certain

that the colleges are altogether clean-handed by comparison. College alumni are the Class B stockholders of the academic organization; they put their good money into the enterprise and are left without voting power. Or, to say it more accurately, they are merely vouchsafed the right to vote for members of some college board which does not control either the expenditures or the general policy — an alumni council, a board of overseers, or whatever it may be called.

These bodies do not, as a rule, appoint anybody or decide anything. The real governing authority of an endowed college, be it the board of trustees, or of directors, or of fellows, is not customarily chosen by the benefactors or by the contributing alumni; it is self-perpetuating. In the case of the state universities, on the other hand, it is usually appointed by the governor or elected by the people, who supply it with funds from taxation. Occasionally, in the endowed institutions, the alumni are given some representation on the board of trustees, but almost invariably these alumni representatives form a small minority of the board. It is the little group of 'Class A stockholders with voting power' who have the control and exercise it.

Anyone who has sat on a board of college trustees is well aware of the numerous departures from sound operational financing which are the outcome of this control by a self-perpetuating board whose members, although men of the highest ideals and probity, are heavily immersed in their own affairs and have no time to spend on any close scrutiny of the college budget. Most colleges profess to have a budget system, by the way, but in many instances it is not a system at all. Sometimes it covers the salaries only, leaving all the other expenditures as a hostage to

good fortune. At any rate, the various criteria of sound budgetary procedure, as set forth by college professors for application in public and private business, are usually honored in the breach. Rarely, if ever, is a college budget the effective instrument of financial control that a budget is intended to be.

The procedure is something like this: the president and the treasurer (or comptroller) sit down together and figure out what the income for the next fiscal year is likely to be — income from tuition fees, from endowment, from gifts, and so on. Some of these items are hard to estimate with accuracy, inasmuch as the revenue to be derived from tuition fees will depend on the size of the student enrollment, which often varies considerably from year to year, and there is no certain way of forecasting what the gifts for current use will be. But, having made their calculations, they then deduct the actual expenditures of the past year from the total estimated income of the next, and the balance indicates how much additional the college can spend during the ensuing twelve months. The president thereupon, either alone or in consultation with the deans, proceeds to distribute this prospective overplus. Some of it goes where it will allay restlessness in the faculty, or otherwise do the most good. Anyhow, when all the additions are tucked into the estimates, usually without any allowances for depreciation of plant or equipment, or for reserves of any kind, the whole thing is called a budget.

Then the president lays it before the board of trustees, reminding them that they are busy men and of course will not care to hear it read in full. It is usually adopted without comment, question, or amendment. There are no hearings at which any of those who are

most concerned in the appropriations may appear and be listened to. For the board of trustees to have the heads of departments come before them and explain what the various appropriations mean (as legislatures and city councils do) would be an unheard-of innovation. No self-respecting president would tolerate such an encroachment on his prerogatives.

I

Allowances for depreciation of plant and equipment, write-offs for obsolescence, and reserves for contingencies, whether foreseen or unforeseen, are the exceptions rather than the rule in college budgeting. It is taken for granted that when a building gets old and unserviceable some benefactor will come forward and replace it. If he does not, the departments which are housed in that particular building must struggle along, often under the most discouraging handicaps, for an indefinite time. Botany may be housed in a mansion, and chemistry in a shack, because some donor happened to have a bucolic idiosyncrasy. Good financial planning would suggest the creation of a building fund, with additions to it each year, so that the college might fill the gaps which benefactors invariably leave. Business corporations make provision for replacements, reconstructions, and contingencies; but colleges as a rule do not. Hence their educational plants are often badly out of balance. They are bound to be, so long as no deference is paid to the laws of amortization.

So with prospective burdens upon the salary schedule. Many colleges promise their professors the advantage of a sabbatical year; that is, every seventh year off duty on half pay. Or, as an alternative, they give the professor one half of every seventh

year on full pay. But few of them ever create a reserve fund from which this arrangement can be financed without detriment to the regular programme of instruction. Hence, when the time comes for a professor to take his sabbatical absence, his courses are allowed to lapse for the year, or the additional work is thrown upon his already overburdened colleagues in the same department, or some 'shavetail' instructor, adorned with a brand-new doctorate of philosophy, is hired as a pinch hitter out of the half salary that remains.

The impairment of instruction is serious, no matter which of these alternatives is adopted. It represents a lack of prevision and planning. If a college would set aside each year one fourteenth of the total salary appropriation as a sabbatical reserve fund, it could keep its instructional efficiency up to regular standards at all times, no matter how many sabbatical absences fell due in any one year. There may be some college that does this, but I have yet to hear of it.

V

In all fairness, it should be pointed out, however, that the financing of the endowed colleges has been a difficult problem during the past ten years. Enrollments have greatly increased, and the expansion of revenues has not kept pace. There have been numerous campaigns for new resources, and the alumni of colleges have everywhere shown an amazing generosity; but even so, few colleges are better off to-day than before the war. Even a free-handed granting of honorary degrees has not allured benefactions in sufficient measure. It has been said of one ambitious university president in the West that, having failed to get a large addition to endowment by a single drive,

he still hopes to secure it a little at a time, by degrees. Looking over the list of degrees *honoris causa* at his recent Commencements, I see that he is on his way.

Meanwhile more students to be educated at a loss per capita, higher salaries for the teaching staff, the increased cost of equipment, supplies, and maintenance — these additional burdens go a good way to explain the hard financial sledding that so many of our colleges have had, although they do not tell the whole story. There are other reasons, even if they are not so frankly proclaimed in presidents' reports or alumni bulletins.

For one thing, there has been a needless expansion of college courses. Even the so-termed small colleges no longer have small curricula. On the contrary, their programmes of instruction are making a valiant attempt to cover the whole field of knowledge, both human and divine. Nearly all our colleges have too many courses. They have too many courses because each feels that it must go its neighbors one better. Just look through their catalogues and see the interminable array of full courses, half courses, quarter courses, 'inter-session' courses, summer courses, seminars and pro-seminars, conferences and colloquiums, which run the gamut from Assyriology to the Theory of Aeronautics and from Christian Missions to Foreign Exchange.

This disintegration of the field of learning into its subatomic elements is the result of collegiate rivalry in the attempt to teach everything that is teachable and some things that are not. It has diluted the curriculum in a way that is detrimental to the best interests of education, and it has burdened the colleges with too many teachers of nonessential subjects. Fewer courses, given by more competent and better-paid instructors, would be of advantage

to all concerned, and not least to the makers of the college budget.

A second reason for the relentless mendicancy of the colleges, despite successive increases in their tuition fees, may be found in the still greater inflation of administrative expenses. Manufacturers would call it 'overhead.' But whatever you call it, the cost of the nonteaching personnel has been growing like Jonah's gourd. The colleges have been adding to their pay rolls a whole battalion of provosts, deans, assistant deans, registrars, recorders, auditors, bursars, business managers, publicity directors, purchasing agents, employment managers, vocational counselors, comptrollers, syndics, or what have you? Their increase is like that of microorganisms, by geometrical progression.

Time was, not so long ago, when a large university could get along with a single dean; to-day even a small one must have a whole hierarchy of them — a dean of the faculty, a vice-dean, a dean of men, a dean of freshmen, a dean of women (when it has any), a dean of special students, a dean of deficient, and anywhere from one to a half-dozen minor satellites as assistant deans. What these institutions will presently need is a *Decanus decanorum*, a dean of deans, whose business it will be to keep all the other deans marching in lock step.

For it is in lock step they march. Their paces are called out for them. Or, to shift the metaphor, all these administrative functionaries are carbon copies of the man higher up — a bit smudgy and indistinct, perhaps, but reproducing with mechanical exactitude even the slips in dictation. The dean of the faculty is the king-kleagle of all these 'Yes-men.' There is no division of power, and rarely a difference of opinion — otherwise there would presently be a new dean. In

his relations with the college president, the ideal dean is a true Polonius: —

HAMLET. Do you see that cloud that's almost in shape like a camel?

POLONIUS. By the mass, and it's like a camel, indeed.

HAMLET. Methinks it is like a weasel.

POLONIUS. It is backed like a weasel.

HAMLET. Or like a whale?

POLONIUS. Very like a whale.

In any event, much of the money which the alumni have contributed for the improvement of instruction has been diverted to these swivel-chair soldiers of the educational army. They have been eating up the commissariat. Who ever heard of anyone endowing the registrar's office, or the dean of freshmen, or the director of regional service? No, these supernumeraries merely create a short circuit between themselves and the unrestricted income of the college. That is why the free income so quickly vanishes. Many professorships are endowed, and hence the incumbents are no burden to the budget; but the proportion of actual teachers to the total paid-personnel has been going down during the past dozen years. In some institutions they are already outnumbered by the non-combatants.

The opportunities for retrenchment in this overhead are everywhere considerable. There is hardly an institution of higher education in the land that could not cut its corps of administrative officers in half without serious injury to the process of instruction. This estimate errs, if at all, on the side of conservatism. We are in danger of forgetting what James Russell Lowell pointed out, many years ago; namely, that 'the fame and glory of a college depend on the teachers who teach therein.' All else is ancillary to the furtherance of the teacher's effectiveness. The expansion of administrative

work can be defended only so far as it contributes to that end. In many of our colleges, however, it has gone much further; it has become an end in itself. The teacher who wants to teach, to study, and to write is compelled to divert his time and attention to the chore of compiling records, filling questionnaires, making out requisitions, authenticating vouchers, and elucidating the obvious at the behest of these paper-work zealots who spend a small fortune each year for stenographers, printing, stationery, and postage.

VI

But there is no need to multiply illustrations of the various ways in which the colleges fall short of the perfection which they expect business organizations to exemplify in matters of financial candor and efficiency. It

will be replied, of course, that a college is not a cotton mill and should not be measured with the same yardstick — which is true; yet it does not alter the fact that accuracy, frankness, and fidelity to ideals are virtues no less in education than in business.

The endowed colleges of the United States, taking them as a whole, are giving a high measure of service in return for the generous benefactions which they have received and are receiving. They have greatly improved their methods of accounting and of financial reporting during the past quarter of a century, which is in part due to the pressure exerted upon them by the various educational foundations.

But there is still some distance to be covered before the college professor of business administration can feel himself safely out of a glass house.

BUSINESS AS USUAL

BY ROBERT DEAN FRISBIE

I

ONE by one remote islands were left astern, trackless stretches of ocean crossed, storms weathered, and long glassy calms wallowed through. The monotonous sea days wore slowly away, and still the schooner moved farther and farther into a lonely sea, visiting islands even more remote from the populous haunts of men. I realized at last that the end of my journey was at hand.

Since childhood I have always liked to reach the end of things, finding a

curious fascination in walking to the farthest point of a promontory, in climbing to the top of a mountain, or exploring the headwaters of a river, but I confess that I have never yet found the elusive apple of gold I have always hoped to find at the end of each journey. Nevertheless I have wandered on, not over the well-traveled sea tracks dear to the hearts of tourists, but to strange and lonely places dear to my own heart, hidden in the farthest seas. Such a place, I knew, was the atoll Puka-Puka (or Danger Island, as it is commonly called), and I looked

forward eagerly to my arrival there.

I had left Rarotonga as a representative of the Line Islands Trading Company, with a commission to take stock in Table Winning's store on Penrhyn Island, to transact a pearl deal on Manihiki, and to go on to Puka-Puka, where I was to open and manage a store of my own.

Three months had passed since we left Rarotonga, months of light winds and lingering calms, when for days together we lay motionless, lazily rocked on the backs of the long Pacific rollers. A fresh breeze would make up at times, only to die quickly away, as though the spirit presiding in that empty sea were reluctant to carry us to our last and loneliest port of call.

But at last we came to where the clouds of white terns announced the proximity of land. At sunset the captain led me to the cabin top, where he pointed out a tenuous black line breaking for a brief space the smooth circle of the horizon. Clouds hung over it, and from the farther side a golden sunset light streamed down, throwing the tiny crumb of land into intensely black relief. The schooner lumbered down the slope of a swell and the island vanished.

'There's your Puka-Puka,' said Captain Viggo, 'and my last port of call, thank God!'

A sharp puff of wind rattled the stops against the mainsail, and from the cabin below I heard the drawling notes of the supercargo's accordion.

When I came on deck the following morning the schooner was resting easily in the lee of Puka-Puka. A fresh trade wind ruffled the surface of the lagoon, for now that we were at our journey's end the long calm too was at an end, and the breeze seemed to be urging us to leave this lonely place, to return to the world we had come from.

To the south was a reef with a haze of sunlight-filtered mist hanging over the foaming breakers. A shorter tongue of reef lay to the north, and the lagoon was to the east, its clear water mottled by splotches of vivid coloring. I saw three islets, one at each corner of a triangular reef which completely encircled the lagoon.

Near by some men were fishing from canoes. Now and then they would glance indifferently at us, in strange contrast to the natives of some of the islands who, the moment the schooner was sighted, would paddle eagerly out to meet her, and clamber aboard, shouting and gesticulating, eager to buy things — to steal them, too — and to get the news from other islands.

'Now there's Puka-Puka for you,' said Captain Viggo, pointing toward the canoes. There was a slight note of resentment in his tone. 'The arrival of my schooner does n't mean as much to these people as their Wednesday night *himené*. Look at the islet there, the horseshoe-shaped one where the settlements are: half a dozen children on the beach and no one else. Very likely their fathers and mothers don't even know that we've come. The island is as dead asleep as it was before the three-fingered god, Maui, fished it out of the sea. Everything is asleep here; I've never made this island except in a calm, and the wind singing through the palms seems to make you drowsier at Puka-Puka than it does at other islands. The people see no reason for getting up in the morning, and most of 'em don't: they sleep all day, but at night they wake up and you'll see them fishing by torchlight off the reef, eating, dancing, love-making on shore. Trading skippers — the few that know Puka-Puka — hate the island because they can't get people to work loading their ships; but I've always liked the place. After all, why should they work,

for me or anyone else? There's not a single article in my trade room that they really need. When they sell me copra and buy my goods they are no more than accommodating me. They know it, too — that's the worst of it!

He laid his hand on my shoulder and, calling me by my island name, went on: 'Ropati, you've seemed out of spirits most of this trip north. Now tell me, honestly, do you really want to stop at this out-of-the-way place? You won't see another white man until I come back again, six or eight months from now. You can't speak the language, and the natives will treat you about as friendly as those fishermen are treating us. You'll be very lonesome, and you know white men often go insane under such conditions as you'll find here. I'll leave you if you're sure you want to stay; but if you've changed your mind, speak out now. I'll take you back with me and there'll be no harm done.'

That's the way it was with Viggo: always fatherly, kind-hearted, and considerate of others even to the prejudice of his own interests. I glanced at the nearest islet dozing in the morning sunlight, with only two or three languid columns of smoke rising above the trees to tell of the life ashore. I thought of my long search in the Pacific for an island where I could be a law to myself and beyond the reach of even the faintest echo of the noisy clamor of civilization. I thought of my little library of five or six hundred books boxed up in the hold, and of my half-dozen kegs of fine old liquor from Tahiti. Then I visualized myself in a cool wattled hut, my brow fanned by the trade wind, and a charming Puka-Pukan ready to fill my pipe and call me to meals. Contentment's motherly hand already seemed to rest on me soothingly. Here no officious relatives or friends would cry: 'Young man, you

are wasting your life! Here you are, nearing thirty, with nothing accomplished, with no plans for the future, with no bank account! You must reform! It is your duty to keep the wheels of industry moving! Be efficient! Abstain from alcohol and tobacco! Join the church! Study Pelmanism!'

I squeezed Viggo's arm. 'No; I want to stay,' I said. 'Can I take my things ashore now? I'll come out in the morning to say good-bye.'

II

The next morning I returned to the schooner. Viggo assumed a cheery offhand manner, but I could see that he was worried, doubtful as to the advisability of leaving me here alone. Had I wished it, I am sure that he would gladly have gone to the trouble of bringing all my goods back to the ship.

But there were no misgivings in my mind as I paddled back across the reef; then I sat on the gunwales, the canoe aground in shallow water, and watched the schooner getting under way. Rounding the northern point, she swung her beam to me, and I could see Viggo by the break of the poop, waving his cap; then the schooner slipped behind the coconut palms of the leeward point. For a time the tops of her sails were visible, then only her topmasts, until, of a sudden, she was lost wholly to view. I was now irrevocably isolated from the world, but with a light heart I called to Benny (Peni), my newly acquired store boy. He jumped from the canoe and pulled it over the shallows to the bay.

In the course of time the store was ready. One room was equipped with rough shelves and one reserved for a storeroom. Upstairs I had my bedroom and a living room furnished with a table, a lamp, and an easy-chair. I

stacked my books in some empty cases, hung an oil painting, by Viggo, of the brig Sea Foam over the door, and tacked a calendar by the table. These sufficed for decorative purposes.

The rest of the establishment consisted of a little cookhouse, where an old native named William (Uiliamu) and his wife, Mama (Metua), presided in leisurely fashion, to the envy of the other natives. They prepared all my food much to my taste, for there is an abundance of sea food here to satisfy my ichthyophagian appetite. Then I could buy fat fryers at a shilling each — as I still can — and eggs at sixpence per dozen; so, after teaching Mama that a chicken should be decapitated before frying, — a waste she greatly lamented, — and that when I said the coffee was too weak it did not mean that she was to make it as thick as porridge the next morning, I got along very nicely.

When William was not fishing, chopping wood, or sleeping, he would sit in the cookhouse and order Mama about with thundering curses that he had learned years ago aboard a whaler, whose tyrannical old skipper had made the ribs of his vessel tremble with his bellowing voice. But dear old Mama was accustomed to this and did not pay the slightest attention.

I opened the store early one Monday morning. Benny and I assumed the proper attitudes behind the counter with all our little trinkets arranged behind us in glittering rows of gilt and paint — and not a soul came to buy. Several hours passed, but toward noon a child peeped around the edge of the door, holding a coconut out at arm's length. We were all attention, but unluckily, just as our first customer was about to make his purchase, his courage failed him, and he rushed whooping away. Whereupon Benny and I closed the station.

No sooner were the doors closed than some of the villagers woke up; and while Benny and I were eating our taro tops and roast chicken, with Mama waving her arms wildly over our heads in a vain effort to keep the flies away, a little crowd of natives gathered about the store. Then they surrounded the cookhouse to see the foolish white man eating with knife and fork. This sight always interested them.

'Ah!' said Benny, his mouth full of taro, 'if we had only waited a few minutes longer we should have sold something.' Benny's favorite word was 'if' (*naringa*), as it is with all Puka-Pukans. Every day one hears such phrases as: 'If I had gone fishing I should have had something to eat'; 'If I had not been under the coconut tree the nut would not have fallen on me'; 'If I had put a new roof on my house.' If I had done this, that, and the other.

But Benny was not so bad in this respect as the other islanders. He had been to Rarotonga, where he had not only learned the language, but had also acquired industrious habits. I gave him a little lecture on the futility of the word 'if,' but I doubt whether he heard me, for he was crunching chicken bones with an appalling racket.

When we reopened the store the little space between the counter and the door was jammed with people. An old man whom I shall call Ezekiel, because his name sounds something like that, was the first customer. Elbowing his way through the crowd, he laid a pound note on the counter and, in a halting voice, asked for a tin of talcum powder. He gazed timidly at the surrounding crowd, smiling when he saw a dozen heads bobbing in approbation. As I reached for the talc there was a buzz of voices from the open doorway at the back, from the two windows, and from the crowd in

front. I caught two words in the chatter: 'Paura' (powder), and 'Ezekiel.' This was the old dog's day, and he was enormously puffed up with the stir he was making.

I wrapped the tin in a piece of ancient newspaper and handed it to the old man. When I turned to count out his change he moved to the door, where he became the centre of an envious group who examined the paper, while a young girl took the tin and shook the powder into her hair with screams of delight. Then everyone's attention was turned to the girl; they smelled her hair, commenting in guttural tones on the fragrance of the powder, while they wrinkled up their noses and rolled out their lips like braying donkeys. At last Ezekiel retrieved his half-emptied tin and turned to leave the store. I had Benny call him back and put the change — seventeen and sixpence — in his hand.

He gazed in stupid amazement at the money, at me, at Benny, and back again at the money. Gradually a light came into his watery eyes — he understood that somehow or other it did not require all his pound to pay for a tin of talc.

His next purchase was a fiery red strip of split pongee, and the same dumbfounded expression came into his eyes when I took only a part of his money. Then he bought a box of matches. He decided to play the game with the remarkable white man, to get as much as possible for his money, for it was very evident that Captain Viggo's first trader on Puka-Puka did not understand his business. Next he bought some tobacco, fishhooks, and a tin whistle. At last there was only sixpence left. He gazed long and wistfully at the various flashy trade goods, finally setting his choice on a red and yellow striped shirt worth, or rather priced, ten shillings. I tried to explain

that there was not enough money left to pay for it, but he could not understand and went from the store convinced, I think, that I was cheating him.

My next customer was Ears (Taranga), the policeman of the Leeward Village, Yato. A very garrulous person, he approached the counter in a fog of verbiage. A thin, shark-toothed woman, his wife, followed in his wake, casting sharp malicious glances at all the other possible customers. She looked enviously at Ezekiel, who was still standing in the doorway gazing at his lone sixpence; then she nudged her husband and demanded that he buy two tins of talcum powder, for it would be a shame to let the Ezekiel faction outdo her in powder.

Ears pretended to know how to count money. 'How much for one?' he cried above the din of voices, rolling his eyes knowingly.

'Two and sixpence.'

He laid down one and threepence with an air of great intelligence and then gazed abstractedly at the ceiling.

His face lengthened when I called for more, but in a moment he broke into a bellow of laughter. 'A wise man, this white man,' he said to the others. 'I thought he might be poor at counting money, like Ezekiel, but now I see that he knows arithmetic as well as I do.'

Then he scratched his head, glanced questioning at his wife, and tucked his *pareu* more tightly about his waist. Finally he shoved a pound across the counter, and again gazed at the ceiling. I took the correct amount and shoved the rest back.

He stared at the money with a perplexed frown; then he nodded his head in a self-important manner, and said: 'I see that he is honest, this white man! I was testing him, I being the policeman of Leeward Village. I wanted to

see if he would steal my money, but he's all right. He has given me the correct change to the last farthing!' Then with a grandiose display of erudition he fingered the coins in a mock attempt at counting, whereupon he walked out of the store very well pleased with himself. He came back later, when the others had gone, to complete his purchases.

At that time, of course, I knew little of the Puka-Pukan language; it was Benny who explained later what the talk was about. I realized that my honesty would be sorely tried, for I could charge a penny or a pound and, with the exception of a half dozen of the ultralearned, no one would be the wiser. I resolved on that first day never to cheat these simple-minded folk. It is impossible for a Puka-Pukan to acquire a sense of values similar to a European's. Native cloth is easier to make than fishhooks; one of the latter, in fact, requires days of toil, so a Puka-Pukan will look upon fishhooks as the more valuable of the two. In the old days sailing traders took advantage of this, asking fabulous sums for a nail, or an empty beef barrel; but today all the islanders, with the exception of the Puka-Pukans and a few others, are quite able to trade with the white race and beat them in the end.

It was Benny who told me about Ura's One-Pound Trading Company, a story which fully explained Ezekiel's surprise at receiving change from his pound note.

A few years before my arrival, a gullible Papeete trading company, disastrously managed by the island-famous (and Jack-London-famous) Paumotuan, Mapui, established a trading station on Puka-Puka, with Ura, chief of police and sometimes deacon of the church, as trader. Although Ura was crafty, he was little better at

arithmetic than his satellite, Ears, the policeman of Leeward Village. Therefore, in order to ascertain that no money was lost, Ura charged a pound sterling for each article in his store, no matter whether it was a pair of trousers or a sixpenny bottle of scent. Tobacco, matches, and fishhooks were exceptions; these he traded for coconuts, as Mapui had directed.

Ura weighed in copra at a pound for five bags, always going through the process of weighing for the appearance of the thing, but always paying the same price. He bought no smaller lots, claiming that his scales would not weigh less than five bags. They were steelyard scales, and, when not in service, Ura used the counterpoise iron weight for a canoe anchor. Eventually he lost the weight, but he blandly twisted a piece of wire around a lump of coral and used that quite as successfully, for five bags of copra still came to exactly one pound sterling.

Thus Mapui's store prospered until one day when a hurricane struck the island. The crafty chief of police managed to save the bags of store money before the seas sweeping over the island sent him up a coconut palm. The store was completely destroyed, and when Mapui returned Ura met him with a long face, deploring the act of God that had swept away the store and all the bags of money as well. But it is an open secret on the island that when other ships came Ura spent handfuls of Chili dollars, for years wearing nothing but red silk shirts and buying bully beef by the case.

III

A few days after opening the store I broke open a case of lemon drops, marked 'lollies' after the New Zealand fashion. Benny and I ate a few and made it known that they were very

good and cost only one coconut each. But the candy business was a failure until old William came to the rescue, bringing a couple of coconuts he had filched from my cookhouse. When he had made his purchase and was crunching the lemon drops, I explained that although it was quite correct for men to eat this confection it was suited to the tastes of children. Despite this suggestion the old men and women started bringing me their nuts, and by noon that day every adult on the island was sucking lollies. I realized a good 500 per cent profit, which trading companies consider a modest return from their commodities; but, so far as I know, none of the children benefited in the candy trade.

The money Viggo had paid for the island's copra was soon exhausted; then the coconut trade started in earnest. I made a price list for Benny which still hangs in the store. The list reads as follows:—

1 stick tobacco...	8 coconuts
1 ship's biscuit...	2 coconuts or 2 eggs
1 box matches...	2 coconuts or 2 eggs
1 large fishhook...	2 coconuts or 2 eggs
1 small fishhook...	1 coconut or 1 egg
1 lolly.....	1 coconut or 1 egg
1 clay marble....	1 coconut or 1 egg

From then on Benny looked after the sales most of the time. He was little more of a mathematician than Ears, but he could count coconuts and read my list. If a man called for a stick of tobacco and a box of matches, Benny would be at a loss to estimate their combined price in coconuts, so I made it a rule that he should sell but one thing at a time. Thus he would count the eight coconuts and deliver the stick of tobacco, afterward counting the remaining two for the box of matches. When anyone came into the store with money he always called me, lest the business should degenerate

into the Ura One-Pound Trading Company class.

Sometimes, of course, innocent deceptions can be practised which have nothing in common with cheating. The natives having returned on one occasion from one of their periodical copra-making expeditions to the neighboring islets, I found myself for several days with enough to do. About twenty tons of copra had been dried, most of which belonged collectively to the villages, for there is no private ownership of land on Puka-Puka. Each man is given his share of nuts to prepare, and receives his portion of money or trade goods derived from the sale of the copra. But after the villages have made their collective lots, the remaining coconuts are divided. Some are used for food, and the remainder split and the meat dried into individual batches of copra.

I had two village batches — from four to six tons each — to weigh, as well as several hundred individual bags, and paid for it at the rate of one penny (British) per pound. The nuts are remarkably uniform in weight, two of them being required to make a pound of copra, so that the natives receive an average of a halfpenny per nut.

There was some wrangling about the price, for even on Puka-Puka the inhabitants wake up sufficiently now and then to wonder whether they cannot get more for their copra and pay less for trade goods. On this occasion Windward Village held back its copra for two months, losing about 10 per cent through further shrinkage in weight. They expected me to raise the price, some of the more sanguine dreaming about five and six pence a pound.

I explained to them again and again that I could pay only a penny a pound, the current price all through the islands at the time of Viggo's last visit. 'Yes,'

they replied, 'but maybe the price has risen since Viggo was here.' 'And maybe it's gone down,' I said. However, they would not listen, and still refused to sell their copra.

I became rather annoyed at this foolishness, and after thinking matters over I decided to have some sport with the Windward Villagers. All the natives had heard of wireless telegraphy from the missionaries, or from some native who had been as far as Rarotonga, where he had gaped at the aerial while some 'civilized' Rarotongan had related weird stories of the *tua-tua reva* (air talk). To a Puka-Pukan, of course, such a thing is sheer magic.

Knowing this, I had Benny stretch some wires from the roof of my store to that of the schoolhouse. Then I rigged up a mass of meaningless wires, flash-light batteries, boxes and tins painted red, green, and yellow, bolts and gadgets of all sorts. Then I fastened a string from a clicker on the table to a pedal beneath it so that I could make the clicker 'speak' by working my foot up and down. My phonograph supplied motive power to turn various clockworks and what-nots.

When all was ready I let it be known that I had constructed a wireless so as to pass my evenings in conversation with my friends in Tahiti and the Cook Islands, and with my great personal friend, William-Cowboy (William S. Hart), the famous movie star in the United States. I further explained that I should publish a daily bulletin of news from Rarotonga and other parts of the world.

My neighbors were so astonished and excited that no one slept that day. The store was crowded, and two or three natives who had been to Rarotonga took advantage of the opportunity to shine, explaining to the others what a wireless was, and minutely

describing the mechanism. They declared that my wireless was exactly like the one in the great station at Rarotonga.

I started the thing going. It ticked merrily, and Benny, standing behind the gear, intermittently pressed a flash-light button behind some red tissue paper to give the appearance of high-voltage current. As the wireless 'talked' I wrote the messages on slips of paper.

One message caused me to pull a very long face. It was a message from London, which I wrote out in native, of course, and posted on the door. The translation is as follows:—

LONDON, ENGLAND, *April 26, 19—*. The price of copra has fallen to a halfpenny per pound. The warehouses are full of copra and there are no purchasers. Warning has been sent to the traders of Cook Islands to buy no more copra this year.

The next day Windward Village came to me in a body to weigh in their copra. I declined, saying that of course I could not possibly buy it in view of the news received from London. The village fathers met that night and there was a long and violent discussion. Those who had been against the idea of holding out for higher prices now had their innings, and the opinions they expressed of the more grasping members of the settlement were as vigorous as they were picturesque and uncomplimentary. I kept all the fathers on pins and needles for a week, when a message came through to the effect that, while the copra market was still unsteady, prices had again risen to a penny per pound. That same afternoon I purchased Windward Village's copra, and the following day I dismantled the wireless station, owing to the fact that the batteries had given out.

I soon learned the peculiarities of the

Puka-Pukan trade. Success depended principally on stocking the store with articles of no earthly use to the islanders, and avoiding everything that might have some intrinsic value. How like children my customers were! Why should they spend their money on umbrellas, or trousers, or toothbrushes when they could buy toy balloons, popguns, and firecrackers!

'I need a new mouth organ,' said Bones, the superannuated 'lady-killer' who has the honor of being the father of Letter and Table-Salt. His head is bald except for a wiry fringe around the base of his skull; his nose, like old William's, is very large, and rheum is perpetually oozing from his faded watery eyes. His clothes were in tatters, and he was carrying a young pig, nursing it in his arms as though it were a baby.

'Here you are, Bones,' I said, 'a fine Japanese mouth organ, well made, keyed true, and noisy: two and sixpence.'

Depositing his pig on the counter, he took the instrument, put it to his big sensual mouth, and breathed into it the most objectionable grunts and groans that could possibly be imagined. There was no tune to it, only amorous gruntings like those of some old satyr who had furnished music for Circe's revels. In fact, if there is, in these modern days, a living image of one of those evil earthly spirits who prowled through the forest glades in the world's youth, then, surely, it is old Bones of Puka-Puka.

Once a customer entered the store with the demand, 'I want a pair of shoes.'

Abel (Abera), a village buck of Windward Settlement, was the prospective purchaser.

I produced some footgear that shone beautifully with a coat of shellac. 'Here you are, Abel,' I said. 'These are the kind of shoes that all the young

men of Rarotonga and Tahiti wear. And William-Cowboy will have no other kind. They are the very finest shoes that can be bought anywhere.'

For some time Abel stared vacantly at them; then he asked, 'Do they squeak?'

'Squeak!' I exclaimed, forgetting myself for the moment. 'Of course they don't squeak!'

'Then I don't want them,' he said, shaking his head decisively. 'What is the good of shoes that don't squeak? I want noisy shoes so that people will hear them and admire them when I go to church.'

I perceived my error at once, and brought out another pair, exactly like the first, for I carry only one line of shoes.

'I see, Abel, that you are a sensible customer, and you have a mind of your own: you know exactly what you want. I can't shuffle off any second-rate, silent shoes on you. Now then, if you want a pair of the finest squeaking shoes, that can be heard a hundred yards off, here are the very ones!'

Abel made his purchase and left, and the next Sunday I saw him walking to church in the midst of the clown parade, dressed in his necktie, his derby hat, and his fine new shoes, which squeaked as loudly as all the rats on Puka-Puka squeaking together. His face beamed when he noted the impression he was making on the young ladies, particularly on Everything's fair and rotund daughters, who were intimate friends of his.

At another time the interest in trading had flagged so seriously that there was danger of having to close the station. I revived interest by opening a large tin of red roofing paint and selling it at two coconuts a daub. Thus some old grandfather would bring ten nuts, for which he could stick his finger into the pot five times and

make as many daubs on his two cheeks, nose, forehead, and chin. Such are the blessings of civilization brought to benighted savages by South Sea Island traders.

IV

Three white men have tried to live on Puka-Puka before me. The first was a Frenchman employed by a Samoan firm. In three months he killed himself in a fit of morbid nostalgia. Next to his grave, in the little cemetery before the coral-lime church, is the grave of a missionary. He also lasted just three months, and I am told that he was quite *neneva*, or mad, when he died. The third grave in the foreign corner of the churchyard is that of Daniel, a Tahitian half-caste. He lasted six months. On his deathbed he swallowed a large diamond and a half-dozen pearls to make certain that they would be buried with him.

I am the fourth foreigner to have stopped here, and I have been the only white resident on the island for five years now. A few months after landing, the native parson took me into the cemetery and pointed out three neat graves, with white coral gravel banked over them. Legendless coral slabs enclosed them.

Karé, the parson, glanced at me with cold fishy eyes and coughed behind his hand as the Rarotonga missionary had taught him to do.

'Ah, Ropati,' he said with a deploring little shake of his head, 'they die very quickly indeed, just like that'—and he brought his tongue down from the roof of his mouth with three clucking sounds. 'You must be careful, Ropati, very, very careful. I advise you to learn the tabus and obey them; and whenever you are sick send quickly for Jeffrey (Tiavare), the witch doctor. Also, I advise you, as a friend, never to go fishing after you have beaten your wife, and to avoid stealing coconuts during the full of the moon.'

He moved a few paces farther and stared at an empty space beyond the Frenchman's grave. 'Hm,' he muttered, compressing his lips. Unconsciously his fishy eyes turned toward me and then back to the empty space. I knew what was going on in his mind, and mentioned that it was time for me to open the store.

While walking out of the graveyard he gave me a final piece of advice. 'Also, Ropati, you must read the Bible, go to church, and cook no food on Sunday. Every little thing helps.'

THE BISHOP'S NEW SPECTACLES

BY THE RIGHT REVEREND CHARLES FISKE

I

A MINISTER'S morning mail is like the membership of his Ladies' Aid Society — at once his joy and his despair. Perhaps I am violating confidences, and in consequence may get myself into serious difficulties, by repeating what many clergymen have told me, that, although there are times when they do not see how they could get on without the dear ladies of the Aid Society, there are occasions quite as frequent when they do not see how in the world they can get on with them. It is sufficient to state the fact without going into a detailed record of experiences that have produced such mixed emotional reactions.

A minister's mail furnishes similar reactions, especially if he ventures, in his sermons or public addresses, to deal with questions of current interest, or to state his convictions about problems of special moment. My own mail pouch is a fascinatingly interesting study whenever I have shown the hardihood to express views on certain controversial subjects which no one could gracefully avoid who is alive to the problems which agitate men's minds — such problems as the solution of the liquor question, or the pernicious activity of paid uplifters, the manners and morals of this generation, marriage as a temporary or permanent institution, or a dozen other social questions which the conscientious minister knows involve definite moral principles on which, apart from their

political and legislative application, he feels it his right and duty to speak.

When he does give voice to his convictions the mail bag bulges. Some of the letters are a delight. Indeed, most of them are pleasant reading, because the majority of those who write express appreciation of thoughts with which they are in hearty agreement. But there is always a generous sprinkling of epistolary disagreement, critical counsel, and violent protest. Numerous persons, with panaceas for all the ills with which society is afflicted, write lengthy letters proving that their own specific remedies furnish a sure cure for the evils we deplore. Every variety of enthusiast or crank reads into one's statements approval of his own theories, much to the personal discomfort of the recipient of his adulation. Sometimes the writers express aggressive agreement with what the poor author was unaware that he had written. It hurts to be lauded as a protagonist of some special theory of which one has never till now heard. It hurts even more when one reads a note of severe rebuke for what he knows he did not say.

Every now and then some magazine article lets free a flood of letters from correspondents whose logical processes make one wonder how they came to subscribe to the dignified journals of public opinion to whose columns the modest contribution of the author was admitted. What a mixed variety of readers the magazines must have! How do they ever conceal from their

advertisers the mental calibre of some of their constituency? Many of the letter writers are anonymous, sometimes, one feels sure, from modesty; more often because prejudice or misrepresentation prefers anonymity. But the poor author is deprived of the sweet joys of controversy. He has no opportunity to reply. He may not look forward with anticipation to a subsequent rebuttal, rejoinder and sur-rejoinder, *et ad infinitum*. He simply grins or groans.

In the pages of the *Atlantic Monthly*, a few months ago, I wrote of how 'A Bishop Looks at the Church.' The ensuing correspondence was voluminous. Much of it was a joy, though a few of the laity, most of them ladies of leisure, seemed to regard me as a sort of *enfant terrible* of the episcopate. Young people poured out their souls by post. Not all, to be sure, were thinking straight; one young man, for example, claimed to have lost his faith because he was convinced that a Y. M. C. A. secretary had stolen his pocketbook! But, for the most part, the writers showed constructive thought about the present status of institutional religion. Many of their criticisms met a responsive echo in my own heart, as when one Episcopalian youth declared that, so far as he could learn from the public prints, the general convention of his own church expected to spend three weeks in Washington during October with no more valid excuse for meeting than the acceptance of a missionary budget which its council knows, and we know, and the council knows that we know, will never be raised; the completion of the work of revision of a prayer book whose rubrics will be regarded by Catholic churchmen, Modernist churchmen, and Evangelicals as kindly suggestions of what it would be nice to do, in case you did not want to do some-

thing else; and the engaging in debate over such supposedly vital matters as the disposition of the Thirty-Nine Articles of Religion.

Of special interest were several letters which presented a challenge in almost identical terms. One man wrote: 'If the Church is as faulty and futile as your picture paints it, why do you remain in the ministry? And how can you continue to urge others to come in?' And another: 'You have expressed exactly what I feel about all of the churches when you declare that the real reason why some of us stay out of them is that we are bored beyond expression by the type of people who are in them. I feel that you are "one of us"; so tell us, please, why you are in the ministry.' Yet another: 'What you say is true; only you have not said enough. Do you not see that what we really object to, in the churches, is not only that so few of the ministers are really "on the job," or that so many of them have substituted sensationalism or political propaganda for religion, but that with every denomination both clergy and people are more concerned about their church than about Christianity, and, with your own denomination in particular, more interested in *apologia* of the Church's position than in aggressive effort to win men's souls? Those of us younger men who are in earnest about such a task may sometimes be unfair, we may be "half-baked," but we have zeal and optimism; and these are exactly the qualities we do not find in church people or in their ministers. You evidently feel something of our difficulties. Tell us, then, why you entered the ministry, and why you stay.' And, finally, the challenge was repeated in these words: 'You have "looked at the Church," Bishop, and you say that all is not well with it. Now get a new pair of spectacles, take

another look, and tell us why you still believe in it.'

These letters were all anonymous. They could not, therefore, be answered, although some of them were written in such evident sincerity that they deserved courteous acknowledgment and perhaps some effort to reply, instruct, and edify. They made one long, indeed, for a personal interview. May I, then, put on my new spectacles, take another look, and answer the challenge?

II

In R. J. Campbell's autobiography, *A Spiritual Pilgrimage* (the story of a life of patient and painstaking pursuit of truth, with courageous facing of the problems raised by modern Liberalism, and in its charm and the candor of its self-revelation equaled only by Cardinal Newman's *Apologia pro vita sua*), there is an illuminating passage which makes clear the principal differences between the Irish Presbyterianism in which the author's youth was spent and the atmosphere of English Non-conformity with which his later life was surrounded. With English Protestantism, the 'Church' had disappeared and the 'Gospel' had taken its place. Evangelization was the thing chiefly aimed at, and that of a particular and well-marked type. The very idea of the Church seemed almost superfluous. Any suggestion of the necessity of being grafted into a corporate life of fellowship was wholly absent. The gospel of salvation was purely individualistic; there was little thought of the Church as the Church, the home of the growing soul, the sphere of sacramental grace, the society which is Christ's visible witness and representative on earth, in which He dwells and which His Spirit guides and inspires. The older Protestantism of Ireland, as of Scotland, still held to this corporate

conception of Christianity — and held to it as firmly as does the Catholic, Roman or Anglican. 'The minister was a man sealed to a vocation not of earth but of Heaven, chosen and anointed with a divine charism for the discharge of a sacred duty.'

We find the same line of cleavage in America to-day. Whether the Protestant congregation be one of the older type, with emphasis on evangelization, or a more cultured group concerned rather with intellectual problems of faith, religion is usually regarded as individualistic rather than corporate. The minister speaks of his own views and convictions. He may be a man of fine character whose preaching affords spiritual help and guidance, but what he says has no authority other than that of his own personal experience. His success or failure depends upon certain 'accidents of the situation' — whether he is the 'right man in the right place,' with a congregation wise enough and good enough to value him accordingly, whether he has a congregation less thoughtful than himself and never facing the questions of faith in which he is interested, or, on the other hand, a congregation more thoughtful than its pastor and seriously concerned over difficulties he does not even begin to think about.

The point is that the whole matter of religion and faith is a matter of personal experience, and the whole question of Christian allegiance and loyalty a matter of individual decision and choice. There is no conception of a corporate life as of primary consideration, nor of a corporate faith as the established result of an age-long experience. Of course, such a corporate conception of religion, with the Church idea dominant, does not minimize the necessity for individual discipleship and consecration. There must come, first, such a sense of the wonder of

Christ's life and of the beauty of His teaching as to call forth devoted, personal allegiance; but there must be the further conviction that Christ never meant His followers to be left loose and unattached — individual fellowship was to be kept strong and steady through corporate union.

We who believe in the Church continue to believe in it, with all its faults, because it seems to us in accordance with the mind of the Master. It is the forethought of Christ, not the afterthought of men. If the Church were nothing more than a convenience, — on the whole a satisfactory method of securing unity of Christian purpose, — then there would be no compelling motive for membership; we could not, for the life of us, get up much enthusiasm about it, or more than a very little interest in it. If its work seemed to us futile, we could shrug our shoulders and depart. Even the question of Christian unity would fail to capture the imagination — it would be a social, economic, or administrative problem, a matter of uniting conveniently useful societies into a common order. Who could get on fire with enthusiasm about any programme of ecclesiastical peace, save as an effort to heal the wounds of 'Christ's Body'?

At bottom, then, here is the real dividing line between Protestantism and Catholicism. Those of us who are sympathetic toward the Catholic conception of Christianity feel — whether rightly or wrongly — that the Church idea is an essential part of Christ's teaching, and that in the New Testament nothing is found as entitled to call itself membership of Christ which is not also membership of the divine society which we call the Church.

The fact that Dr. Campbell found this Church 'atmosphere' in the earlier Protestantism of his youth shows that the conception is independent of

Roman Catholic claims, and that the essential principles of faith and order may be held in union with an interpretation of life in terms of the individual conscience. In America, just now, so some of us believe, the real need is a return to this ideal, if Protestantism is not to end in what Mr. MacManus calls 'the nadir of nothingness.' Catholicism, as an ideal, is a system of worship, of sacramental grace, of order, doctrinal truth, and broad fellowship. It may degenerate, by an overinsistence upon authority, tradition, and apostolic order, into autocracy in ecclesiastical government and static intransigence of religious thought. Protestantism, as an ideal, stands for personal religion, individual acceptance of truth, rigid obedience to conscience, and consecrated service of Christ and of men. It may degenerate into unhealthy individualism, with self-determinism run mad, and private judgment multiplying sects; it may tend toward fatal indifference to authority and the lessons of experience; it may become over-desirous of basing morality upon law and backing it up by legal enforcement; it may be overfond of dictatorial methods of moral reform; it may appear narrow, aggressive, and disputatious. We need the ideals which lie at the root of both systems, but our first need in America at the present time is a reconsideration of the corporate nature of the Christian religion. However academic all this may sound to my youthful correspondents, it is worth while to get back to first principles in the discussion of our problem.

III

'But,' objected Alice, "'glory" does n't mean "a nice knock-down argument."' 'When I use a word,' Humpty Dumpty said in rather a scornful tone, 'it means just what I

choose it to mean, neither more nor less.' Humpty Dumpty was a prophet born out of due time; his unconscious followers are many, and they play havoc with clear religious thinking. We are always using different terms for the same thing, or the same term for different things. Possibly the general attitude toward the Church would change if we could make less dim and obscure the thought of the One, Holy, Catholic Church. It is not just an abstraction, equivalent to 'all the churches,' or, with greater vagueness, to 'all Christian people.' Though we are members of particular churches, our membership is lifted into union in a society which is the 'Body of Christ.' There is a Catholic, though not Roman, Church consciousness which makes this society more than an abstraction, like 'mankind' or 'American' and 'European'; it is concrete and real.

We who believe in the Church, despite its present futility, feel that because it is the divine ideal it has recuperative power, now, as it has been shown to have such power in the past. If we criticize, it is with constructive purpose. We are so committed to the Christian programme, and so convinced that it can be realized only by corporate action and in a corporate life, that when we see the Church failing in its purpose *it hurts*, and we cannot but show our pain and shame. But we still cling to the Church idea, and we are convinced that only as Protestant America returns to that idea and ideal will there be renewal and regeneration of religious life. In America, the notion has become general that the churches are mere convenient agencies of Christian effort, to be accepted when desirable, changed at whim, or even deserted in disgust. They are 'amorphous aggregations of individual souls,' societies through which 'a set of views may be promul-

gated, and a more or less incoherent and unstable set of views, at that.' Against such a view of Christianity we protest with all our strength. We stay in the Church because we believe in its divine character, while recognizing its human faults. Our criticism, therefore, is something more than whining complaint or pessimistic despair. We point out weaknesses in the hope of arousing a 'divine discontent' which will lead to the restoration of the ideal in which we still have strong faith.

For certainly we are not surprised that the Church does fail. Of course it does, since it is human. We believe in democracy — government of the people, by the people, for the people — despite its blunders. The Church is of God, but it is also of men. It is a society of sinners, by sinners, for sinners — made up of weak men, carried on by them, designed for them. Even the apostles were a rather poor lot. Bruce Barton, in *The Man Nobody Knows*, said that no one had ever put a big matter into the hands of such poor trustees. Christ's apostolic family was in all ways weak, though eventually, for most of its members, their commission raised them above themselves. Some failed, but the work was done by the brave and faithful. Protestantism, even at its best, thought of the Church as the Society of the Saints, whereas it is really the refuge of sinners, penitent but weak, learning but not yet made perfect, trying but often failing.

Christ expected weakness and failure. He likened the Kingdom to a net, full of fishes both good and bad. He compared it to a field, full of wheat and tares, which could not be separated until the time of harvest. There never has been a time, in the long history of the Church, when it did not need reformation and new inspiration. Its history is the story of a long struggle

with a weak membership. But, somehow, it has served its purpose.

It will continue to serve its purpose, because it is the one society which enables men to know themselves 'as part of a vital tradition covering a history longer than that lying between the horizon of their threescore years and ten.' The Church is the only society, other than the family, with a great philosophy under it and a sublime ideal behind it. Its power lies not in its argument but in its aim; not in its advance — often slow, and sometimes so slow as to appear a retreat — but in its goal. On the whole, it knows whither it would be going. Dean Sperry says, 'The only thing that will be the death of the churches is the death of all personal religion.' He should have said more. 'Churches' may fail, if personal religion dies among their members. But 'churches' are little groups of a larger whole, and 'the Church,' in this larger sense, will not die. Like the giant, it 'never feels perfectly well all over'; it is big, and there are distresses and disturbances somewhere all the time; but it is strong, and throws off diseases and cures injuries in its members.

Modern Protestant discipleship is hesitating and uncertain, impotent and unsaving, just because it lacks this larger vision of the Church Universal. It is to this larger vision that we remain loyal, despite the distressing inefficiency of the moment. The only hope of Protestant Church life lies in a return to the thought of the Church as a world-wide organism which represents Christ on earth and is 'His Body,' through which He does His work. Such a Church presents a great cause, challenging the labor and loyalty of men. It puts things in the right order. It summons men to worship, not in order to secure promises and favors, but in order to become

better and more active in service. It calls for an adventurous religion, not 'the passivity, drowsy devotion, and blind obedience which people think is religion.'

IV

These considerations give us the real reason for Church loyalty. We can never, in days of doubt and distress, rekindle enthusiasm and affection for a Church that is little more than an Ecclesiastical Rotary Club. The truth is that American Protestantism has been reducing the Church to this level. I am not seeking admission to the ranks of those who week after week take their fling at the noon-day luncheon clubs. They have their place and value. But we may be good Americans of a reasonable — if not the full hundred — per cent without becoming 'joiners,' or when we grow weary of combining oratory and eating we may resign without loss of self-respect. The average American, after a like fashion, believes that he may be a fairly good Christian while ignoring the Church, and, when bored by what he sees in the Church, feels that he may retire to the 'private practice' of religion.

I do not find any such individualistic system of faith and practice in the New Testament record of the beginnings of Christianity. Faith in Christ was always corporate. His followers were always brethren. They were exhorted not to 'forsake the assembling of themselves together, as the manner of some is.' They 'continued stedfastly in the apostles' fellowship,' as well as in their teaching. They met daily, or at least weekly, for the 'breaking of bread' and the 'prayers.' For myself, I expect to continue in the same way though there are dullards galore in the congregation; and, even more, I shall continue though my pious soul be distressed by the hypocrisy, indifference,

deadness, or self-complacency of those who make up the rest of the congregation. Perhaps, indeed, I may even be moved to ask whether my righteousness really exceeds the righteousness of the scribes and Pharisees by so large a measure as those in other ways like-minded with myself generally assume.

Indeed, even as a human institution, one cannot feel that the Church is a failure. After all, I seem to see an effect upon the general life of its members which, far as it falls short of what we desire, is greater than the results effected by any other human institution. We forget how great has been this general advance. It has affected our social life as well as our personal life, our national life, our spiritual life. Indeed, it even accounts for some of our present doubts and difficulties.

Why has the present generation become so critical of the type of Christians whom Bishop King used to call 'mousy little men'? Why but because the Church has been presenting the human Christ, as never before, in all His winsomeness and attractiveness and in all the strength of His splendid manhood? Why have we become dissatisfied with the pettiness of much of our church work and the nasty little self-consciousness of some of our church workers? Why but because the Church has had teachers who have gradually developed another type of Christian — men with the natural virtues of 'pleasant paganism,' but also with the aroma and atmosphere of Christianity? Why do we find an increasing dislike of the present propagandist activities of Protestant America, save because of the fact that there have been some Christian prophets to show the attractive power of faith, until at last we are beginning to see its modest charm and are approaching the day when there will surely be wider appreciation of the kindly, courteous, tolerant, quiet,

steady, and well-disposed religious folk who mind their own business and modestly and unobtrusively worship and serve God in their own way, without obnoxious insistence that everybody shall serve and worship God in exactly the same way; in particular, not showing themselves impertinently inquisitive as to the faults and failings of others and overzealous in bringing them to repentance and a better life?

Yes, there are improved standards of Christian life appearing just over the horizon, and the Church is responsible for the change, with the dawn of the new day. Religion to-day is more strong, more powerful, more sane, and not less devout, than the religion of our grandparents, because the Church has looked more closely into the life of the human Christ. The change of social attitude is due to the same influence. With all its faults, business is less brutally pagan than it was in other times. Industry has changed in a generation, and the change has not been due entirely to the growth of democracy or the power of labor organizations; it has been due to the preaching of 'the social gospel' by fearless churchmen. The change of mind as to corruption in politics is very marked, despite recent scandals. We are no longer 'corrupt but contented.' There is indifference, of course, because the country is prosperous, and prosperity causes 'fatty degeneration of the moral nature'; but conditions are nothing compared with earlier days, and churchmen have not been without influence in pointing to the perils of an easy-going democracy. War has lost its romance. Why? Hundreds of pacifists who blame the Church for not stopping the World War forget that churchmen are responsible for clear thinking about the subject now, and that their moral influence, more than the hysteria of

pacifist agitation, is responsible for the movement for peace.

One of the most frequent complaints against the Church refers to the unhappy divisions of Christendom; but to what do we owe the movement for unity but to the Church itself? Division came because the Church had become secularized and corrupted and had to be reformed. In the effort to establish truth, men became enamored of meticulous doctrinal expositions of the faith, and the process of fission went madly on. But it is the Church, not its critics, which is leading the return to unity and fellowship, and leading it with right motive, not as an economic consolidation, but as a unity of evangelical purpose, with true understanding of the mind of Christ. Nothing in our present age is so indicative of the recuperative power of the Church as the strength of this movement toward reunion.

Our very ideas about God — for that matter, even our doubts about God and our difficulties of faith — are a sign of the advance of true Christian thinking. The world is more sensitive to the problem of evil than ever before. We see so much of the apparent heartlessness of the universe that faith which can survive the test of serious thought demands all a man's honest effort; it must be what George Tyrrell called 'faith in long trousers, not faith in knickerbockers.' It is no longer easy to believe in a God of love, and we would best confess the difficulty, instead of avoiding it. Yet an Infinite and Eternal Power lacking the qualities of love and tenderness and pity would no longer be God for us. Why? Because slowly, through the centuries, the Church has taught of God as Jesus knew Him, until His thought of God has gradually moulded our ideas, just as His standards of life have slowly changed our moral conceptions. The

very difficulties which oppress us have come to be felt as never before because Christianity, through the Church, has given us ideas of God which alone can satisfy. We must have a God who is like Jesus. No other God will content us, and if we cannot have such a God we will do without God rather than accept another. (Perhaps that supplies a hint as to the way in which to approach the question of Christ's divinity.)

V

We hold fast to the Church, despite its faults and failings, because it is the one institution which definitely witnesses for Christ. Someone has suggested in a witty protest, with humor that stings while it smiles, that apparently the first qualification for the ministry nowadays is that one should have in him the makings of an efficient administrator and financial manager. The writer deploras, as one of our contemporary tragedies, the fact that so many of our ablest young men become bond salesmen and stockbrokers, although these fields are already overcrowded and the men often meet with only moderate success, whereas if they had gone into the ministry they might soon attain fame and fortune as pastors of large city churches. Or some of them go into the law, and eventually into politics, whereas as emotional orators their great opportunity might have been found in American pulpits. Sometimes, yes. But the picture is a caricature, just as *Elmer Gantry* is so overdrawn in its ugliness, in depicting another type, that it defeats its own purpose. In fact, the quiet work of the true priest, preacher, and pastor goes on, and it is still holding up Christ, proclaiming faith in Him, and bearing witness to Him in service and teaching. No other society save the Church exists for keeping that faith alive. However

inadequately the faith and teaching are presented, in a divided Christendom, nevertheless the fires are kept burning.

We do not believe that the witness will fail, and therefore we are sure Christ's words will not pass away. Of late the world has been slowly coming to the conclusion that His way and teaching were right. The old plan of life has broken down, and men are looking wistfully to the Way of Life which Christ taught and to which the Church has always borne its broken witness. Some, it is true, feel that He was disillusionized at the end, and found that His plan of living would not work in a rough world like ours; that, while academically sound and idealistically beautiful, it was smashed to pieces by the hard facts of life, and cannot now be acted upon without exceptions and reservations. Yet the Church, in its weakest days, has always held up the standard, and at last we are coming to see that Christ was right in declaring that we must put 'first things first.' It is not a question of life smashing His teaching to pieces; the question is whether life itself will not be broken to bits if His teaching is wholly ignored. Personal problems are still settled by words He uttered centuries ago. There is scarcely a social movement which does not seek, in some degree, to utilize His principles. Economists and statesmen are beginning to talk in strange ways of taking His spirit into national and international relations. They have begun to dread the upheaval which is sure to issue out of complete disregard of Christ and Christian brotherhood. Men are saying now, in loud tones, what the Church has always said through the voices of its prophets, even when its speech has been feeblest: that apart from Christ there is no charity wide enough, and no faith deep enough, to bring the world lasting peace.

I do not think I am wrong in saying that the Church has always taught this, however feebly and falteringly, and that outside the Church it has rarely been taught with an approach to consistency. Nor do I believe I am in error in saying that, on the whole and in the large, the Church has based its teaching on faith in Christ, generally in Him as the unveiling of the heart of deity, always in Him as one in whose face men have seen the light of the knowledge of the glory of God.

We need such a faith. Life is a poor thing without it. How poor it is may be guessed from Robert Keable's confessions published a few months after his death and showing how painfully he was trying to find his way back to light. How impotent and unsaving life is, apart from such faith, we see in the recent report on an inquiry into 'The Sensible Man's Religion.' I have no doubt that the report is a true one, and that its conclusions fairly well summarize the beliefs of the average man outside the churches. But read the emasculated creed. It is a weak and nerveless thing. It makes no demands, offers no adventure, calls for no sacrifice, has no appeal, points no challenge. Doubtless there are also thousands within the churches whose faith is no larger. That is the reason we find the churches suffering from a terrible blight. Too many of their members have a religion which is hesitating and uncertain; it carries no atmosphere, has no courage or conviction. That is the reason for the sickness of the Body of Christ. 'At the centre His heart still beats strongly, pumping the life blood; but the valves are choked up, the blood cannot circulate freely, the members fail to work in harmony with each other, and many seem numb or dead.'

The remedy lies not in abandoning Christ's ideal. It lies in seeking to embody the ideal. We shall not be

alone when we set out upon our task. We shall find ourselves members of a goodly company; for the Church still has its saints and heroes. I call to remembrance men like Grenfell, Rowe, and Stuck; men like Mott and Speer; men like Graves and Teusler; women such as Miss Royden, Mrs. Simkovitch, or Miss Vida Scudder; soldiers such as Wood and Pershing; statesmen like Stanley Baldwin or Ramsay MacDonald; scientists like Pupin; men high in social life such as Lord Halifax or the Duke of Newcastle; we have had our Mahans in the navy; we have judges, college professors, business men, heads of great corporations, leaders of labor organizations, financiers, governors, and presidents. There lies before me a list of more than a hundred leading public men of America, and names of some fifty wonderful women, who would willingly make public declaration that all they are and all they have done they owe to the Church's faith. Their names cannot be printed — indeed, the living who are named above will object to being numbered among the saints. If I were to print the complete list, there would be objection to the inclusion of some names; they all have their faults and defects. Imagine the excited discussion which would follow upon my naming Wilson or Roosevelt as Christian examples among the presidents! They had their faults. So had all the departed saints whose names are now in the sacred calendar. I have no doubt some of them were not any pleasanter companions than are you who would read the list, or those who compiled it, or I who withhold it.

To live with the saints in Heaven
Is bliss and glory;
To live with the saints on earth
Is — often another story!

That is not the point. The fact of importance is that every one of them has

splendid virtues, and every one attributes all to Christ and the Church. There are good men and women, it is true, outside the Christian fellowship; but the names on my list are of men and women who show a peculiar quality of goodness which only the fellowship of believers creates. It is an indescribable something which makes us realize how impossible it is to separate the character we call Christian from the creed out of which the character is born and the Church in which it is nurtured.

I entered the ministry because I saw — far back in those days — what faith in Christ meant. I came to that faith, as did Romanes, after passing through doubts such as he had as he wrote: 'When I think, as at times I must, of the appalling contrast between the hallowed glory of that creed which once was mine, and the lonely mystery of existence as now I find it — at such times I shall ever feel it impossible to avoid the sharpest pang of which my nature is susceptible.' I came to faith through the shadow of a sorrow shared with the closest friend I then had, whose suffering I tried to lighten. I reached my faith through study of the person of Christ, finding that He exercised over me the same fascination the four Gospels show Him as exercising over those who felt that their eyes had gazed upon and their hands had handled the very Word of Life.

Then I looked at the Church, and I saw all its weaknesses. I watched its members and knew them for the poor things they were. I went into the ministry to make them more worthy of their calling. And ever since I have been trying to make myself more worthy of my own! I doubt if anyone would be won to the Church if he knew me as I know myself, and yet I think he might be won if he could guess what I should have been, and might still be, without the Church and its worship.

TWO SONNETS

I

THE tides of Time that sweep our lives away
Must ebb for you as they recede from me.
You too, beloved, must grow old some day
And gaze at youth as I do, wistfully.
Then, in the gathering darkness, would I stand
Close by your side and hold you comforted,
When, like a frightened child, you seek my hand.
But when that need arises, I'll be dead.
Remember then the things I did not say —
And which, unslain by words, by silence sanctified,
Remain behind when I have gone my way,
Too much your own to perish when I died.

And this still living part of me will come
To sit beside you, in the empty room.

II

Blossoms of words I gather for your sonnets,
Fragrant and many-hued, with heartstrings round them.
They are but decorations for your bonnets,
And others see and wonder where you found them.
These are the simple gifts of my impoverishment,
Poor starveling products of my artlessness,
Where, on my fancy's frugal nourishment,
Fell random seeds of your great loveliness.
And though of little worth they seem to be,
When others lay great treasures at your feet,
You'll know you've seen the stars at noon with me,
And heard the skylarks in a city street.

And when, with years, all other pleasures fade,
You'll still repeat these silly rhymes I made.

R. S.

THE THREE WISHES

BY MARGARET MUNSTERBERG

GOLAUD. Est-ce qu'ils parlent?

YNIOLD. Non, petit père; ils ne parlent pas.

GOLAUD. Mais que font-ils?

YNIOLD. Ils regardent la lumière.

GOLAUD. Ils ne disent rien?

YNIOLD. Non, petit père; ils ne ferment pas les yeux.

GOLAUD. Ils ne s'approchent pas l'un de l'autre?

YNIOLD. Non, petit père; ils ne bougent pas, ils ne ferment jamais les yeux. . . .

J'ai terriblement peur. . . .

MAETERLINCK, *Pelléas et Mélisande*

DORA MERRYWEATHER caught a glimpse of her five-year-old boy as he was peeping through the portières from his vantage point in the little vestibule between the dining room and the library, where her guests, under the drowsy spell of the flickering fire, were just entering upon a somewhat subdued and meditative mood.

'If the little imp will only keep out of mischief now!' she was hoping. 'Emma ought not to have let him creep out of his bed at this time of night. She does n't know how to manage him. He will be picking up stray ends of conversation again and let them torture his precocious, fantastic little head. Not, to be sure, that anything is being said just now to corrupt five-year-old youth!'

These friends, who were lingering in an intimate circle after the other guests were gone, seemed indeed to have slipped into a blissfully naïve state, as they allowed themselves to do — and she realized this with pride — only in the mellow atmosphere of her

own open house. Most of the men who had been here to-night — and Hortense Lorraine, too, for that matter — would ordinarily begrudge an evening spent away from their desks, with not even a dinner for compensation. These loose, congenial Thursday-evening gatherings without special invitation were unique in the university town.

'Yes, he was a powerful thinker,' old Professor Leighton's rich voice sounded from the depth of his leather armchair. 'But he never attained the greatness that he desired.'

'Who does?' sighed little Mrs. Odiorne.

'Do you remember the old fairy tale,' asked Hortense Lorraine, staring into the fire, 'of the three wishes?'

'Yes,' said Maurice Andrews, at her side. 'Did n't a fairy allow a peasant and his wife just three wishes, and did n't the old peasant woman wish that a sausage would hang on her husband's nose and then have to waste a perfectly good wish to get it off again — or off her own nose — how was it?'

'Oh, I remember it very clearly,' Dora Merryweather now joined in heartily. 'I read it to Peter only the other day. But what makes you think of that, Hortense?'

'Oh, well,' said Hortense, 'I am sometimes so childish — I like to imagine some spirit offered me just three wishes to be surely fulfilled and I had to decide then and there what they should be.'

'A desperate task!' said Maurice Andrews.

Dora let her eyes travel in a circle round her guests; they were all hushed and listening to the vagaries of Hortense as if they were the latest hypothesis of Einstein. A strange intensity was settling on every face, and each pair of eyes was drawn to the fire, as if a secret could be read in the restless, blue-green flames.

How funny this was! Dora had a perverse wish that the whole company would suddenly turn into children. Chubby, curly-headed children! And old Professor Leighton a darling little boy! And she herself would be back in that sunny childhood of hers! That would be her first wish, if she had three precious ones at her disposal — to be a child again in Birchsilver, the country home, with laughter in the yard full of romping playmates, laughter on the dark old stairs, laughter rippling in every corner. Her gay young mother, her little brother who looked like Peter — oh, what folly to waste a wish on a life that had no Peter in it! Dora was quite serious now; there were only three wishes, and all three must be for Peter! They were not hard to find. In the first place, he must always love her to the end of her life — wish number one. Then he must always be happy, of course; but that was too vague, for what was happiness? He must have his own heart's desire, his own ambition fulfilled, so that he would always have that precious light in his eyes that kindled when he ran to meet her, and was so easily eclipsed by a harsh word. Also he must become a great man, in some intellectual field, like his father and grandfathers, only more distinguished, more original than any of them — wish number three. His father! With a sense of guilt Dora glanced in the direction of her husband, who was brooding unperceived in a dark corner. The three wishes were exhausted and she had forgotten him!

Now she could not unwish them any more. . . .

In the silence that had fallen on the room, which made the ticking of the old clock formidable, Hortense Lorraine felt suddenly face to face with herself, as if the others were mere phantoms. Three wishes! Only three. It seemed as if life were nothing but intense wishing, wishing all the time. What was every poem, created with so much pain, but a crystallized dream or wish? Or was it called hope? Hortense was often haunted by a picture of Dante's Limbo, where the virtuous Pagans languish in eternal desire without hope. Three secret, inmost wishes to come really true! Hortense felt her pulse quickening with the awful responsibility of choice. Well — one wish could be quickly disposed of: that the publisher would accept her book of poems. He had it now three weeks. There was a certain pride in the definiteness of this wish. After all, there was some compensation for outgrowing the turmoil of student days: a clear purpose emerges at last. Now, with the poems safely between covers, what next? Good reviews, fame? Oh, no, let that take care of itself. One wish was enough for one's work. And now the two others. Here her confidence left her, and she felt on unsafe ground. Neither was she alone in the room any more, with only spectres dimly filling the background. Of one other inhabitant she was intensely aware, almost afraid that he might penetrate into the depths where a wish was taking form. That dreaded spy was Maurice Andrews, and the wish was for his love. The fierceness with which that wish asserted itself was startling — it seemed as if it were being screamed into the silence. And, when the wish comes true, what will become of little Ethel, Maurice's fiancée, with those big blue child's eyes adoring him, waiting for him in the

deariness of her small-town home? Hortense was not cruel. Ah, but there was still a third wish left—and could n't that be for Ethel? That Ethel should turn away from him and love someone else? But would n't that be likely to happen anyway, if she knew that Maurice . . . ? Yet it would be better if she turned from him first. . . . How childish, childish! And what would it all lead to, anyway? The third wish must be something definite—some end. Marriage? His faithfulness? Oh, let that all be taken for granted! The third wish: a child from him! There was honesty at last! But poor Ethel. . . .

Maurice Andrews felt a strange vibration, as if some force from without were communicating itself to him. This childish fancy was taking a queer hold on his mind: three wishes! Suppose some power really granted these three. There was, of course, a fascination in the ancient sacred number. Else why just three? There was something inexorable about it, too, for the wrong wish and its fulfillment could never be undone. If one could choose—but one was n't even free to choose one's own wishes; they seemed to come by themselves. There it was, the first wish: to be in Professor Leighton's place in the university. The rôle of instructor for one whose book was now internationally known, while mere drudges held higher posts, was too irksome to endure. Therefore . . . but oh, shame! For Leighton's chair to be vacant, the dear old man would have to die. Never! The second wish must be old Leighton's voluntary retirement with a pension. And now there was only one wish left for the contents of life. This was a deliberate wish: his three-volume study of Swift should be a masterpiece, an undisputed contribution to scholarship. That was the third wish. But something was left that

should have been included in all this wishing. What? Why, Ethel, of course. But what was there to wish about her? Was n't she his, secure, already? Why was Hortense Lorraine looking at him just then? Disconcerting she was, with that dark, haunting glance. . . . Clever, too, with swift flashes of insight. A poet . . . he must read her things; or perhaps not—they might have less life than their author. Tantalizing, that look of hers. . . .

It must have been a nervous stir on the part of Maurice Andrews that made Professor Leighton, who was smoking placidly in a remote corner of the room, suddenly look in the direction of his young colleague. To be as young once more as that brilliant pupil of his! Ah, if there were something in this puerility of the three wishes, that would be his first wish, without hesitation! Slowly he inhaled the rich smoke from Mrs. Merryweather's excellent Havanas, and sank forty years back into the time of his early manhood. He was a young instructor with a passion for his subject, attracting more students than the head of the department. Those lectures on the Romantic Movement were n't bad—not at all bad for that time. But oh, the humiliation of being under that small intriguer, with his jealousy of the stronger and younger man! He could still see those foxlike little eyes. The old scholar shook his head; no, if he were to be forty years younger again, it would not be in that or any other fresh-water college! No, he would be a young instructor at Harvard, with all the means for research at his disposal and the prospect of early promotion. And Jane would be alive! That would not be the third wish, of course, but the first. Jane and he would be young together once more! The old man took off his blurred spectacles and wiped them carefully. The sweetness of it . . . yes, but those

scenes she used to make, over his late hours, his smoking, the new hat that he did n't like, over the coffee in the morning — over anything and everything when she was possessed. And how willful she used to be, never giving in or admitting that she was wrong! No, the first years had been trial years, and then, as they defied intrigues together, as the children grew up, as time mellowed both . . . Dear Jane! If she could be here now as she was ten years ago — that last year! No, those foolish wishes for youth should be unwished again, if only Jane's hand could lie on his once more — the trembling, wrinkled hand, so dear. . . .

The ash tray on the little table between Professor Leighton and William Odiorne was accidentally knocked over.

'What can be agitating the old Professor so?' thought the lawyer. 'He is lost in contemplation and yet seems excited. What can be going on inside that white-haired old head?' Nothing the like of which was ever in his own, William Odiorne's — no, sir! Some unworldly fancy or a problem of what Spenser meant in some line of the *Faerie Queene* or how many grams of opium Coleridge used before concocting *Kubla Khan*. . . . And what queer, unearthly wishes such a head would entertain! Oh, well, there was not much pondering for William Odiorne, Jr., when it came to three wishes. First — money! There was no mincing that big and solid truth: money to make him free, so that he would not have to slave in the office one other day! A deep sigh of relief escaped him at the prospect. Wish number two: a farm somewhere in Connecticut or New Hampshire, where he would raise fruit trees, experiment with them, breed them true, like another Burbank. Oh, the torment of a missed vocation! To be out in the air from morning to night, brown from the sun, using one's per-

fectly good strong hands! Very well, sir, but how about the rheumatism? Confound it! Hah — the third wish will be to get rid of rheumatism for once and all. There, now! What will Bess say? Indeed, what will she say to the farm! Far too many words to suit him. Oh, pshaw! Can't a man have three decent wishes fulfilled and be left in peace? Was there still bound to be something? Well, if he were limited to three, there was no help for it; he would have to let the rheumatism stay and use the third wish to transform Bess so that she would be supremely happy on the farm. . . . Darn it! There was that twitch again. With a hundred wishes fulfilled, and that pain, there was no joy. . . .

The involuntary twitching of the stolid lawyer did not escape the fine perceptions of Donald Fisher, the youngest and least conspicuous member of these evening gatherings. The twitching reminded him of the convulsive movements of the frog with which he had experimented this morning, touching its leg with acid. If only the tadpole experiment would bring the desired result — if the polliwog, after the operation, would only refrain from growing into a frog! Really, if he were a superstitious fool and could have three wishes — the joy of that experiment turning out right! And the next step — the second wish: to discover the law of growth. A glow spread over him, and his pulse thumped at the thought. It would be the consummation of his hopes. But would it be possible to carry on all the necessary experiments under present conditions? Ah, the third wish: a large and permanent endowment for the laboratory. Those three wishes fulfilled, and life would be worth while. . . . Oh, but he was an egotist, a brute. Not a thought of his old mother who had toiled, out on the dreary Dakota farm, to make this life

possible for him! Would he be experimenting now if she had indulged in ease and the things other women liked — if she had been like that silly woman over there, toying with a cigarette in her plump hands that looked as if they had never held either a needle or a broom? . . .

Mrs. Odiorne felt that someone was looking at her, though she was not sure who, or whether or not the look was agreeable. Not that she minded being looked at! After all, why did one spend weary hours at the dressmaker's and hairdresser's if nobody paid any attention to one? Look at Dora Merryweather now! She seemed to command attention without effort. Now if Bess Odiorne could have three wishes come true, she would wish to be in Mrs. Merryweather's place. How she would enjoy these evenings as hostess! How smart she would make them — perhaps with bridge for some, instead of just talk. But — was n't there always some but? — she could n't abide Dr. Merryweather for a husband. No, old Bill was better than a doctor coming home at all hours. . . . And besides, she was afraid of that wiry, aged-looking little man. He had a way of staring right through you, enough to make you squirm. No, that first wish would have to be revised: she would n't want to be in her hostess's shoes at all — only to be as young and clever and handsome as Mrs. Merryweather! Then wish number two: to be a great social leader. That was fine! And now for a third one. Perhaps it was silly, — people would laugh at her if they knew, — but she did so want to speak French fluently. Ever since that dinner for the French celebrity, — oh, what was his name? — when the other women had all talked to him and she had sat there dumb and out of it, that had been her secret wish. And if she could play the piano as well as her sister Roxie . . . or . . . three

wishes did n't go very far. . . . And there was that horrible Dr. Merryweather again looking at her as though he could read every one of her thoughts and saw how ridiculous they were. . . .

Dr. Merryweather had slipped in late and found his wife's guests still lingering. He stood in a dark corner, behind a revolving bookcase, where he did not have to talk after an exhausting day, and let his eyes wander round the room. He caught his wife's swift, alert glance as it shot in his direction. How young and fresh she was! How untouched by care! He almost envied her. If he could have three wishes fulfilled, they would be sleep, sleep, and again sleep! He lit a cigarette and leaned against the wall. Three wishes, indeed! As if he were not consumed with some passionate wish every hour of his day! The eyes of that cancer victim this morning in the public ward, those eyes riveted on to his with the dying man's last hope and beseeching him for help. . . . Oh, God, if that man could come to life again! What a wish! Then the operation this afternoon — the young man, only support of his family. There was hope there — if the patient's heart could survive the strain, he would be saved. The torture in the mother's look! — Then the poisoned woman in the maternity ward who lay in convulsions — if she could pass the crisis to-night, there would be a chance. . . . The passion of these wishes was wearing him out. Now that the disciplined tension of work was relaxed, a wave of bitterness flooded his spirits. What did these people in the room know of agony and despair? What trivial wishes — ambitions, vanities, futile desires — were filling their minds this moment?

There was not one who could follow him — not even Dora. Gifted as she was, devoted mother, perfect housewife and hostess — she could not

accompany him to those depths into which he was plunged almost daily. Not one here, not one! The loneliness of it! His eyes again swept the circle of his guests, and now they met the full, dark glance of Hortense Lorraine. Here there was passion — here was his equal! Strange that he had not even noticed her before. She was, he believed, a musician or poet. A poet and a healer could meet perhaps on the same plane. . . . Tired, worn-out as he was, he felt himself suddenly jerked back to life. And he was darkly, mysteriously drawn to this stranger in his house. . . . Heavens, what was that?

A heart-rending wail rang through the house and terrified the guests, so that they sprang to their feet.

'Emma, Emma!' cried a child's voice in mortal terror. 'They're bewitched! Come and see! Oh, I'm afraid. They have n't said a word — nobody has — an awful long, long time; and they're just all staring and they look awful, like ghosts. A

bad fairy has come and bewitched them all.'

Without a word, Dora Merryweather slipped out of the room to comfort her hysterical child.

'The boy is right,' said Donald Fisher quietly. 'We have all sat for twenty minutes in complete silence. I noticed the clock when Miss Lorraine first spoke of the three wishes.'

The sultry atmosphere that had settled upon the room was not relieved by so much as a smile. The spell was not broken, but intensified, as one glanced furtively at the other, dazed and embarrassed. Mechanically they looked round for the hostess, but, as she was not in sight, they walked upstairs one after the other, silently or with subdued whispers put on their cloaks, and just as silently left the house. Dr. Merryweather crept up the back stairs to his private study which no one entered, and threw himself on the couch, after closing the door, to avoid meeting his wife

'EVER GRATEFUL FOR THE PRIZE'

BY AGNES REPPLIER

I

IN 1867, at the International Exhibition in the Champ de Mars, Paris, appreciative judges awarded a prize to the biggest and deadliest gun manufactured by the 'Cannon King,' Alfred Krupp. Three years later, France had practical, if painful, proof that her award was well merited. Half a century later, this gun's successors — notably the mysterious 'Big Bertha,'

which had a radius of seventy-five miles, which killed seventy-five non-combatants on Good Friday in the church of St. Gervais, and which disappeared as easily as a toy pistol after the signing of the Armistice — showed conclusively that prizes, like chickens and curses, come home to roost.

The reaction after the World War has temporarily dimmed mankind's interest in guns, and concentrated it upon plans for peace. True, a brigadier

general of the United States army has recently carried away from English competitors a British War Office prize of three thousand pounds for a self-loading rifle, which can fire twice as fast as a hand-loaded rifle, and can therefore be trusted to kill twice as many people. But this is an unusual, though widely heralded, event. For the most part, prize givers and prize winners are substituting the abstract for the concrete, the desired for the ascertained. It is the natural and touching belief of reformers (every American, says André Siegfried, is at heart an evangelist) that by putting up enough money they can ensure reform. The mediæval barons had a somewhat similar set of convictions, though the goal they sought was different. It took the wisdom of an unlettered peasant to enunciate the great truth: 'Le bon Dieu ne vend pas ses biens.'

The connection between Colonel Charles Lindbergh's Latin American flights and permanent — or even temporary — peace is hard to trace; but we can all sympathize with the relief of the Woodrow Wilson Foundation when Heaven sent its way this splendid young adventurer to whom it could give the award. Awards, especially recurrent awards, are a weighty obligation. Something has to be done with them, and the supply of prize money is occasionally in excess of legitimate demands. Colonel Lindbergh is one of the outstanding figures of the world to-day. He has made history as history has always been made, by men who go about their life's work with no great regard for spectators. That he should receive the Woodrow Wilson award pleased the public, and made possible some charming phrases, such as 'healing wings,' and 'the young ambassador of good will.' If international relations rested upon sentiment or phraseology,

the Western continent would be a love nest.

It may be remembered that thirty-seven years ago Oscar Wilde — a keen pacifist — was convinced that, although emotional sympathy would never be strong enough to unite civilized nations, intellectual sympathy might accomplish this great end. 'It would give us the peace which springs from understanding.' He felt sure, for example, that no Englishman who was capable of appreciating the excellence of French prose would ever want to make war on France, which may or may not be true. Germany, having an avowed preference for stodgy prose, was naturally immune from such an influence. Goethe, whom Mr. Wilde quoted with triumph, did indeed confess that, in his eyes, the culture of France outweighed her belligerence; but no general argument can rest on such a foundation. A world of Goethes would be a world at peace.

II

The ineradicable buoyancy of the human heart, and the ineradicable materialism of a prosperous civilization, are indicated by the prizes which earnest Americans offer for the theoretical abolishment of evil, and the theoretical upbuilding of good. A sound, waterproof plan of peace is in their eyes a highroad to harmony; and so it would be if men lived by rule. When two years ago the Society for the Prevention of Crime offered a prize of \$2500 for a programme which would make New York less sinful, it expressed a generous desire that other cities should profit by the light let in upon Manhattan. A Boston reformer, 'shocked by the increasing number of suicides among college students,' conceived the idea that a cure might be effected through the popular medium of

the drama. That dramatic art, like every other art, can influence by indirect methods only ('Cela prêche la population,' said Diderot, looking appraisingly at Greuze's 'La Bonne Mère') is a circumstance which straightforward propagandists fail to apprehend. The anonymous Bostonian was perfectly straightforward. He offered a prize of \$1000 for a play which would 'hold up faith in life to the youth of America.' It was a large order. Boston, like New York, stood ready to extend its benefactions to the country at large. It wanted a whole reforming play for \$1000, while New York was willing to give \$2500 for a reforming paper of two thousand words — more than a dollar a word. In both cases it was hoped that something would happen which has never happened since the beginning of the world. Men and women were to change their methods of thought and modes of life because somebody had been stimulated by motives, other than the desire for good, to present arguments in favor of the change. It is true — and a happy truth — that amendments on a scale large enough to be noteworthy have been brought about from time to time. A study of the means employed by Saint Francis of Assisi and John Wesley might make salutary reading.

Three years ago a chemist in New York offered a prize of \$100,000 for a formula of synthetic opium which should be an exact reproduction of nature's product. The prize was not intended to stimulate trade, but to destroy it. All rights to the formula were to be sold to a virtuous international syndicate which would drive poppy opium from the market by underselling, and then refuse to sell. Thus would the world be rescued from a curse which, since the days of Hippocrates, it has valued more highly than its blessings. Two obstacles to this

plan (apart from the great original obstacle of the formula) seem to have been overlooked. Synthetic opium would be worth many millions to the inventor who is expected to sell his secret for \$100,000; and when the time came to remove it from the market, the industrious husbandmen of China would probably replant their poppy beds.

The multiplicity of prizes in our day is a distinctive feature of modern civilization. There is no lack of them in Europe. France especially, in spite of *Figaro's* plaintive suggestion that what the world needs is a 'Society for the Discouragement of Letters,' offers superb incentives in the Flaubert, Renaissance, and Goncourt awards; to say nothing of lesser laurels, such as the Prix de la Femme de France, sometimes so curiously bestowed. But it is in the United States that prizes take on numbers, magnitude, and infinite variety. They are given for every imaginable form of excellence, from high scholarship and civil service to 'hot-dog' stands and the 'ideal ankle.' Nothing comes amiss to benefactors who are searching for somebody to benefit.

The Pulitzer prizes alone would daunt any institution of less grasp and magnitude than Columbia University, under whose auspices they are awarded. Every year — and a year runs swiftly by — the judges are required to give prizes of \$1000 each for an American novel, an American play, an American biography or autobiography, an American history, and a collection of American verse. There are others, but these five are enough to consider. They would be hard to dispose of under any circumstances; but Mr. Pulitzer took pains to make the disposal harder by imposing impossible conditions. The novel must 'present the wholesome atmosphere of American life, and the

highest standard of American manners and manhood.' (One wonders if the New York journalist had in his mind the manners and manhood of eighteenth-century Lima.) The biography must teach 'patriotic and unselfish services to the people.' The history and the verse are less heavily handicapped; but the play must 'represent the educational value and power of the stage in raising the standard of good morals, good taste, and good manners.'

These conditions deny criticism. It is true that the Nobel literary prize is awarded for work which is great 'dans le sens d'idéalisme.' This is the discriminating clause which gave to Mr. William Butler Yeats the lead over Mr. Thomas Hardy's more serious claims. It is restricting, but it does not, like the Pulitzer stipulations, impose tests which have nothing to do with literary or dramatic qualifications — tests which may be eluded to some extent, but which may not be deliberately disregarded. That the prize for the best novel should have been twice given to Mr. Booth Tarkington shows the gratification of the judges at finding a popular and thoroughly 'all right' novelist upon whom they can unload. The selection of *Alice Adams* in 1922 suggests the line of least resistance. This analysis of the sufferings of a girl who does not have a good time at parties is subtly and uncannily acute. How did Mr. Tarkington chance to observe so closely the pitiful devices by which a wallflower seeks to cover up defeat? But by no stretch of imagination can such a picture of wounded vanity be accepted as illustrating 'the highest standard of American manners and manhood.' As well might we accept the argumentative vapidities of *Why Marry?* or the Cinderella-like smugness of *Miss Lulu Bett* (a good book gone wrong in playland) as representing 'the educational value and power of

the stage.' Yet both these dramas received — in seasons that must have been exceptionally barren — the Pulitzer award.

It is as hard to extract from a novel or a play a meaning which it has n't got as it is hard to write a novel, or a play, or an essay, or a book of any kind along lines laid down for competitors. A convincing proof of this difficulty was the failure last year of ten thousand essayists to compose a paper on President Wilson which the Woodrow Wilson Foundation could possibly accept as worthy of the \$25,000 prize they offered. Such a failure could only have meant that men and women who know how to write know also that no good creative and critical work can be done without a broad margin of freedom. A biography of a man must reveal a man, and a man, especially if he win renown, is a complex creature. No catalogue of virtues and accomplishments can disclose the principles of humanity, cemented, as Montaigne reminds us, with sickly qualities. The glory of our fallen nature is that no mistake or mis-carriage can permanently cloud the vision or obstruct the way; and the consideration of this truth is more heartening than the echo of all the panegyrics which have ever resounded through the world.

As for the 'all-American' history of the United States, which was designed to win a \$10,000 prize, and gratify the Mayor of Chicago, it should be, if it ever sees the light, an interesting volume. Facts are said to be stubborn things, but they have been relegated before now to subordinate positions; and if ten thousand dollars cannot soften them into acquiescence, or banish them entirely, of what use is American money? The real difficulty of such a task is that not even the most accommodating of historians can wax confident over mendacities that have

been bought and sold. When Macaulay and Froude threw overboard the obtrusive facts for which they had no use, they did so in obedience to their own prejudices and enthusiasms. They grew more and more eloquent as they wandered farther and farther from bare unsympathetic truths; but eloquence, while perfectly at home with error, is not susceptible to bribery. Some years ago the producers of a book called *Profits*, which dealt with American industries, offered \$5000 for the best adverse criticism of their work. They probably knew that while there might be plenty to say — and say truly — against it, the offer of a preposterous award could be trusted to dull the edge of assault. Censure, like praise, must be born of conviction; but conviction may be born of passion or prejudice, and be all the stronger for its lineage.

III

The history of prize giving is full of interesting and unedifying incidents. Far back in the year 1830, the Central Unitarian Association of England decided to offer three prizes, one of ten guineas, one of fifteen guineas, and one of twenty guineas, for three essays designed to convert Roman Catholics, Jews, and Mohammedans to the truths of Unitarianism. The value of the awards was held to be nicely balanced by the difficulties of the task. It ought to be ten guineas easier to convert a Catholic than to convert a Mohammedan who has so much farther to travel. All three prizes were won by Harriet Martineau, then a young woman of twenty-eight. She must have discovered a modifiable formula which could be applied to all three classes of recusants ('One part helps another,' observed the experienced Vincent Crummies), and she was forty-

five guineas the richer for her find.

The curious and painful part of this story, however, is that the reasoning used with such financial success by Miss Martineau overturned her own convictions. Two years after writing her prize essays she recoiled, expressed regret for 'the weakness and falseness of the views' she had been conveying with so much pains, and became, in her own words, 'a free rover on the broad, bright, breezy common of the universe.' Her rovings led her straight to the then popular cult of Mesmerism, which inspired her with such thoroughgoing zeal that she filled her house with patients ('seven asleep at one time in my sitting room'), and filled the columns of the *Athenæum* with stories that would have sounded unusually incredible in the *Arabian Nights*. 'There are minds,' observed Sir Thomas Browne, 'that can credit the relations of Mariners, yet question the Testimonies of Saint Paul.' But mariners' tales, albeit in bad repute, are stark realism compared with some of Miss Martineau's mesmeric revelations.

Every now and then we read about the winning of a prize so unusual or so well bestowed that it seems to right a little the prevailing wrongness of circumstance. Such a one was the \$1000 Pulitzer award for reportorial work in 1924 given to two newspaper men who unearthed the evidence which compelled Nathan Leopold and Richard Loeb of Chicago to confess the foulest crime in the city's bloodstained annals. Another and more cheerful instance was the prize given some years earlier by the British Agricultural Society to a Mr. Gibbs, — otherwise unknown to fame, — because he wrote a practical treatise on harvesting wheat in wet weather. If he had anything helpful to say on that score, the rain-soaked harvesters of Britain must have arisen and called him blessed. Last year it

occurred to the *Washington Daily News* to offer a prize to the Federal employee who was 'most on the job.' The judges passed lightly by a number of more or less distinguished names which would have done credit to the journal, and ferreted out a woman who, during five administrations, has been in charge of the United States Civil Service Commission's Bureau of Information. She draws a salary of \$2300; and every year an average of thirty thousand people seek her advice and assistance. What that woman does not know about the rank and file of government workers is not worth the knowing; and if anything in the nature of a prize can sweeten her labors, let us thank a just Heaven that she got it.

Better still was the story that came from Paris of the giving of the Henri Fortin prize to a twelve-year-old girl, a laborer's daughter who, since the death of her mother two years before, had taken charge of her father's home and four younger children, without ceasing to attend school. Only in France could such a miracle be credited. It is said that the audience in the Trocadéro was moved to tears at sight of this child who had shouldered the burdens of maturity. The award of five hundred francs, once worth the winning, had shrunk with the fallen franc to a pitifully small sum. It is to be hoped that sympathy took some stouter form than tears when this drama of the poor was unfolded before the eyes of the well-to-do.

It is a far cry from a poverty-stricken child receiving thankfully a few dollars ('I shall buy eggs,' she is reported to have said) to the great Nobel prizes accepted with indifference and hauteur by men who have climbed the heights. When Anatole France was awarded the Nobel prize for literature in 1921, he said very plainly and very truly that he

had no need of it. He had money and fame in plenty. Bernard Shaw was even more explicit. He said that he had more money than he could spend, and more fame than was good for him. Rudyard Kipling, though less outspoken, showed the same unconcern. To such embodiments of success awards are superfluous, a well-meant but purposeless attempt to gild refined gold. Money can of course be disposed of, but honors must be retained, crowding in upon other honors in a fashion which Mr. Shaw considered unsanitary. Of the three men, he alone has had the habit of looking into his own soul.

That the city of Toronto should have presented a Sheffield tea service to Miss Mazo de la Roche, whose novel, *Jalna*, won the Atlantic Monthly \$10,000 prize, is a circumstance worthy of an older and more tranquil generation. To get a prize for winning a prize is sufficiently unusual; but to have one's own town so pleasantly alive to one's prowess is unprecedented. Cities do occasionally put up notices, which nobody reads, to inform the public that a distinguished citizen, long since dead, lived in this or that house, which nobody looks at; but they do not give silver services to show their pride and pleasure at the success of their living children. That Miss Eva Le Gallienne should have received a prize of \$5000 for her efforts to provide good plays at prices which people who love good plays can afford to pay, heralds the approach of the millennium. It carries the light of hope to hearts that starve for pleasure. Even the fact that Miss Le Gallienne, when she brings her New York Civic Repertory Company to other cities, asks the same price that non-reforming managers demand, cannot extinguish our confidence. That Princeton University should offer two foreign scholarships (which are prizes) with the expressed desire that the recipients shall

feel no obligation to do any special work, but shall merely meet all the foreigners they can, is a splendid departure from tradition. With an ocean lying between America and Europe, and with keen observers like M. Siegfried lamenting that never before did Americans and Europeans have a less intelligent understanding of one another, the essential need is intercourse. It may or may not lead to sympathy. It cannot fail to afford enlightenment.

IV

A pure pleasantry in the way of awards was the recent offer of really handsome prizes for really handsome designs for hot-dog stands. It seems tolerably certain that nothing will win the American proletariat from this favorite article of diet, the speculative nature of which does but enhance its charm; and that nothing will induce the proletariat to call it by any other name than the one which has been so affectionately devised. The booths from which this delicacy is dispensed are many in number, and visibly lacking in elegance. At the Philadelphia Sesquicentennial the hot-dog stands were so numerous that they distracted attention from more legitimate and more pleasing structures. To combine tastefulness and simplicity in such a fashion as to content the æsthetic without alienating the unrefined can never be easy. A newspaper poet, one of the anonymous versifiers who fling their wit and wisdom to an unheeding public, has expressed in the following lines the sentiment with which the hot dog itself regards its approaching gentility:—

In my lowly shack,
In my dull abode
By the dusty road,
By the beaten track,
Modestly and long
Have I fed the throng.

Thrust within a bun,
Humbly I have done
What the hot dog can
For the hungry man.

Now that they will build
Palaces for me
Wonderful to see,
Shall my warmth be chilled?
Shall I be stuck up?
Am I such a pup?

Nay, let me remain
Meek, without disdain,
Man's devoted friend,
Faithful to the end.

I make no apology for this simple and timely verse. ‘What can we relish if we recoil at vulgarity?’ asks Santayana from the heights of his ineffable distinction.

Yet it is just possible that even Santayana's tolerance would be strained by the kind of vulgarity which is displayed in the beauty contests that have run riot in this country, and have apparently penetrated into Europe and South America. The protests voiced against the disgraceful and demoralizing spectacles at Atlantic City have been so vigorous that there is a chance of their being suppressed; yet newspapers vie with one another in printing pictures of these half-naked young women (whose beauty must be taken on faith), and in writing sentimental imbecilities about them. It was calculated that last year's prize winner would probably earn — apart from the prize money — at least a hundred thousand dollars by showing herself in vaudeville. The money, we were told, was to be used in the study of art; and it was the valuable opinion of the judges who had given her their votes that, ‘having beauty herself, she should not find it hard to create beautiful work.’

This flawless bit of reasoning establishes a new basis for achievement. Christopher North said that no ugly woman ever wrote a beautiful poem the

length of her little finger; but he had founded his views upon the undeniable comeliness of Mrs. Hemans, whose verse — many times the length of her little finger — he sincerely admired. He probably did not think she wrote *Songs of the Affections* because she was good-looking; but only that she would not have written them had she been ugly.

A young woman to whom was awarded a beauty prize in a contest at Galveston, Texas, and who was dubbed 'Miss Universe,' which was going one degree better than Atlantic City's 'Miss America,' received a public ovation when she returned to her home in Jersey City. A committee from the Chamber of Commerce met her at the station with flowers and flags, and the Mayor 'formally welcomed her from the stage of the Central Theatre.' It does not sound grown up; but neither does the fuss made in New York over 'the ideal American ankle,' the measurements of which were given in the papers, together with the measurements of the calf, the knee, and the thigh which necessarily accompanied it. Five hundred dollars, a silver cup, and a bronze cast of the ankle were awarded to the young woman so distinguished.

A great deal of American money is spent in this fashion, but other countries are correspondingly profuse. We have heard much of Britain's financial straits. Her distress at seeing works of art and cherished manuscripts looted by American plutocrats can be readily understood. No generous heart likes to see a country despoiled by purchase; and the abduction of little Alice from her English home savors — for all the money paid — of child-stealing. But a group of London newspapers could afford to put up a prize of a thousand pounds for a beauty contest; and a

picture of 'England's girl' came over the seas to take its place in our Sunday press with pictures of the most beautiful young woman in Spain, the most beautiful young woman in Belgium, the most beautiful young woman in Chili, and the many most beautiful young women at home.

Prize giving, if it does not degenerate into indecency, is a legitimate form of advertising. Nevertheless, it is startling to see a jeweler's window filled with silver trophies of the type usually awarded to tennis players, and to be told that they are prizes designed for an 'interstate spelling competition,' adroitly staged by a business school. Spelling is admittedly a more desirable accomplishment for most of us than tennis playing; but never before did it take on such a sporty character, and never before did it win such immediate and valuable recognition. Last year seventeen newspapers offered prizes for a national spelling contest in our national capital. A little boy of thirteen from a country town in Ohio won the championship and \$1000. A little boy from Iowa won \$500, and a little girl from Pennsylvania, appropriately christened Minerva, won \$250. Accustomed as we are to the lavish scale on which everything is conducted in our lavish land, these figures are staggering. Memories of a whole childhood of unrecorded and unrewarded industry sear my soul with a sense of injustice in that I was born too soon. Nor does the fact that I never could spell reconcile me to fate, for well I know that the race is not always to the swift, nor the battle to the strong. Stout nerves and the lawlessness of chance determine many a contest, which is what makes the thrill of competition and the supreme joy of victory. 'Stolen fruit is sweet,' observes George Meredith; 'but undeserved rewards are exquisite.'

EVOLUTION—A CONSERVATIVE'S APOLOGY

BY PAUL SHOREY

APOLOGIES and explanations are useless, yet I wish to begin by saying bluntly and baldly what I shall repeat with variations: that I know I am taking the unpopular side; that it can do no harm, for we have heard nothing but glory to evolution in the highest for the past thirty years; that, though I sometimes play with the subject in the hopeless endeavor to conciliate editors who demand 'the readable proposition,' I am quite sincere and serious.

I

The ancient rhetoricians already observed how much easier it is to hold attention with praise and agreement than with argument and dissent. But some demon impels me to fly in the face of their precepts. I have never but twice had the good fortune to speak on the popular side of any question; once when we were at war, and once at Hull House, when I told an audience of Greeks that trailing clouds of glory did they come from Greece, which was their home. But otherwise all my life I have been defending lost causes, leading forlorn hopes, and protesting against the excesses of contemporary fads and fashions. And now old age steals upon me, still apologizing for the classics in a Greekless age, denouncing pseudo-science to a generation intoxicated with that heady brew, and seeing red everywhere in universities whose instructors are merely dyed a harmless delible pink by their deplorable preference for the *New Republic*

and the *Nation* to the *Saturday Evening Post*.

The subject I have chosen this time on which to exercise the spirit of contradiction and paradox, as an unfriendly critic might call it, is evolution — the gospel of evolution. A psychologist could explain this attitude as a reaction from my bringing-up, and an illustration of the modern social and political law anticipated by Plato's remark that doing anything excessively provokes a revolt to the opposite extreme. I was not brought up on the Main Street of Gopher Prairie or Winesburg, Ohio, or in the Nebraska of Miss Willa Cather. I was not told that it is sinful to play cards or drink beer or dance or smoke cigarettes or exhibit your ankles. I was not compelled to memorize the Catechism. I was not driven to church, Sunday school, and prayer meeting three times in one day. I was not forbidden to read anything but Josephus on Sunday afternoon. I did not attend a sectarian college in Kansas or Nebraska, where *Evidences of Christianity* replaced philosophy, and the deleterious effects of four per cent of alcohol on the coats of the stomach stood for chemistry and biology.

My experience, then, is precisely the reverse of that of those denunciatory critics and novelists who feel that their most pressing mission is to redeem America from the Puritan virtues, and deliver her from creeds that refuse and restrain. Instead of prescribed Josephus and Foxe's *Book of Martyrs*, I

read Darwin's *Origin of Species* aloud to my mother at the age of nine. As John Stuart Mill modestly observes of Plato's *Theætetus*, which his father made him read at six or eight, I am not sure that I understood it all. During the first two years of my course in the old west-side Chicago High School, I was further initiated into forward-looking thought by Shelley's *Queen Mab* and Herbert Spencer, and went about spouting, —

'... The exterminable spirit it contains
Is nature's only God,'

and justifying my refusal to attend even a left-wing Unitarian Sunday school by quoting Spencer's 'when the unknown cause produces in him a certain belief, he is thereby authorized to profess and act out that belief.' I even learned by heart the definition of evolution: 'Evolution is an integration of matter and concomitant dissipation of motion, during which the matter passes from an indefinite incoherent homogeneity to a definite coherent heterogeneity, and during which the retained motion undergoes a parallel transformation.' For this, thirty years later, I substituted the more portable, pregnant, and ironic formula of Mallock: 'Evolution is the rational sequence of the unintended.' At the close of my high-school course I delivered a commencement oration on the Future of Science, with a peroration from Shelley, 'Happiness and Science dawn, though late, upon the earth.'

From the Chicago High School I went, not to Siwash College, but to Harvard, and that hotbed of infidelity destroyed my faith — my sweet, innocent, adolescent faith in the genesis of Herbert Spencer, the *Origin of Species*, and the psalms of Shelley. The Harvard professors, who were even then more intelligent than their failure

to educate Henry Adams makes them appear, did their perfunctory best to preserve it by setting me to read Schopenhauer and von Hartmann, and by a course in Spencer's psychology under Professor James, who was then himself young and still worshiped at Spencer's shrine. But, as there was then no vigilant scientific and radical censorship such as we shall soon have, I was allowed to find my way to Plato and Berkeley and Matthew Arnold and Ruskin and Mill — and the mischief was done. I was emancipated, and never again could be formula-ridden by the Lenins of pseudo-scientific dogma.

Plato taught me the meaning of reasonable argument, and delivered me from Herbert Spencer by the remark that, when you meet disciples who proclaim that their guru is omniscient, there is always some illusion or hocus-pocus involved. Berkeley's unanswerable logic made me smile at Spencer's ponderous refutation of him and its naïvely pathetic conclusion: 'If the idealist should be right, the theory of evolution is a dream.' And Matthew Arnold's application of a Homeric quotation to the definition of evolution made it impossible for me ever to contemplate it again without a grin.

These reminiscences are of course neither proof nor evidence of anything. They are merely a preparatory Freudian analysis of some of the infantile fixations that make me write as I do.

One further serious caveat I must enter before I take the plunge. No matter what vivacities I may be tempted into, to whatever extremes the spirit of reaction may carry me, nothing that I shall say is intended to have any bearing on the scientific teaching of biological evolution in the laboratory to students properly prepared to understand it in a definite and technical way.

I am merely trying to improve the text of Mr. Balfour's remonstrance with people who 'have a sort of semi-scientific varnish' and who, he thinks, 'do nothing but harm by spreading this sham philosophy among the young and ignorant.' I am aware of the futility of this protest. A few years ago when, at the Leland Stanford commencement in honor of our returned soldiers, I professed in the disconcerted presence of ex-President Jordan a few harmless sentiments about patriotism, Americanism, and the necessities of national defense, a Daughter of the Revolution — the revolution of 1917 — whispered to my wife, to her great glee, 'Ain't he mediæval?' That will be the mildest comment on the present utterance.

II

The first and chief thing to observe about evolution and popular culture is that our scientific colleagues are suffering from a fear-complex, which the actual state of public opinion makes a little superfluous. If there were the slightest danger of any serious interference with the scientific teaching and study of biology, my sympathies would be wholly with them, and I should think it injudicious, if not wrong, to treat lightly so vital an issue. But a very little observation of the actual trend of controlling public opinion is enough to dissipate these tremors. I do not know whether the things that our foreign critics repeat after Mr. Mencken and Mr. Darrow about Tennessee and Florida are unqualifiedly true. But there can be no doubt about the situation in the dominant circles of all the leading Northern states. I have been suggesting some of the doubts and queries of this essay in conversation for some years, and hinting that there was possibly something to be said even for the late Mr. Bryan. I have never met

one person in university, professional, business, social, or political circles who took the suggestion seriously, or who admitted that this case was no exception to the rule that there are two sides to most questions, and that a considerable popular movement probably has some justification in a real, however confusedly apprehended, problem or grievance.

The two chief reasons for this are plain. First, almost the most skillful and successful campaign of propaganda ever undertaken was that of Huxley and his associates and successors in behalf of Darwin and Darwinism. Huxley's reprinted polemics are still directly or indirectly the chief source of every able editorial on the folly of fundamentalism and the absurdity of Mr. Bryan, from Maine to California. They all know and continue to quote Huxley's retort to Bishop Wilberforce to the effect that he would rather be descended from an ape than from an ecclesiastical sophist. Mr. Horatio Bridge's centenary tribute to Huxley tells the story much more eloquently than I can. And he incidentally illustrates the point to which I am tending by the admission that Huxley's importance lies in those fields in which he always confessed himself an amateur: that is, in philosophy, theology, and ethics.

It would, of course, be very superficial to attribute the popularity of evolution wholly to propaganda, however skillful. Biology has been widely taught in our colleges, and the evidence from palæontology, embryology, rudimentary organs, homologies of structure and function, and the life story of the little Eohippus and his more or less toed or ungulated descendants, has been brought home roughly but convincingly to an ever-increasing body of students. To this we must add a still more influential cause, the miracles

wrought by the applications of science in the world of action in the last fifty or a hundred years, that list of discoveries and inventions which a sense of humor ought to prevent any writer from repeating, because it has been enumerated with almost identical words and comments in thousands of textbooks, popular histories, and commencement addresses.

But, whatever the explanation, the fact of the popularity of evolution is certain. Evolution has a good press, an almost unanimously good press, throughout the Northern states. There is, in fact, no cause that is so immune from criticism to-day, that is so sacred a cow, not only in the newspaper offices, but in the universities of the North, as evolution with a capital E.

An ambitious young professor may safely assail Christianity or the Constitution of the United States or George Washington or female chastity or marriage or private property or the defense of your native land or the acceptance by the university of the interest and dividends that pay his salary. He may advocate the complete mongrelization of the population of the United States. He may teach Marxian economics or Westernmarckian ethics. But he must not apologize for Bryan, or hint at the discouragement, not by the police, but even by argument, of the circulation of pornographic fiction and the dogmatic inculcation of a materialistic psychology and cosmogony. That would be intolerance, lack of a sense of proportion, failure in open-mindedness, unfaith in progress. It is not done.

For these reasons I think that my scientific friends are unduly agitated by the antics of a few freak legislators, and that, as I have said, if I were not too old for that, I am the one to be frightened. The scientific study of biology is in no danger. But the continuance of the Huxley, and too often

the Haeckel, type of propaganda, addressed not only to the adult public or to expert students of biology, but to the undergraduate public in its novitiate years, is another matter, and is at least open to friendly and thoughtful discussion.

The starting point of such an inquiry is a distinction which by this time must be familiar to all who have read or thought about the matter at all, but which in the heat of debate is often ignored even by scientific men as well as by the public to which they appeal. It may be variously described as the distinction between the most helpful working hypothesis of science at any given date and ultimate truth; or the distinction between science as a body of organized critical knowledge in a limited and defined field and its usurpation of the functions of a general philosophy of life and the universe; or, to come closer to the issue and not to mince matters, the distinction between the probability — the certainty, it may be — that our bodies were evolved by the operation of natural and calculable forces from the bodies of animals and the assertion that it is now known, or the prophecy that we shall soon be able to demonstrate, that this process completely accounts for the human mind, and proves not only that mechanism is the most convenient working hypothesis of some kinds of science, but that it is all there is in the universe.

It is necessary to dwell a moment on this distinction, for everything depends upon it. We need to clear our minds not only of cant, but of ambiguity and timidity. There is a great deal of both in the huge recent literature on the reconciliation of science and religion. Both sides have taken to their trenches, and only a few skirmishers venture into the open. The most pertinent comment I know on evolution in the

twentieth-century pulpit is the old Victorian limerick: —

A bishop there was of Natal
Who had a Zulu for a pal.
Said the Zulu, 'My dear,
Is n't Genesis queer?'
Which converted my lord of Natal.

It was a clever answer of the British divine who, when asked his opinion the other day about evolution and fundamentalism, replied that in England the Church had outgrown these controversies, and had come to realize that what mattered was not where man came from, but where he was going. It was a politer form of Carlyle's summary pronouncement that his concern was not whether monkeys had become men, but how to keep the present generation from becoming monkeys. It was a shrewd evasion, but an evasion it was.

A mechanistic evolution, a materialistic neurology, and a behavioristic psychology, consistently thought out, are quite incompatible with anything that can honestly be called religion. To teach them on the same campus would be, to those who think, a jest, and, to those who feel, a tragedy. The attempts at reconciliation, sincere or insincere, are familiar to us all. Type of many of them is Herbert Spencer's Unknowable with a capital letter, the sufficiency of which we may plausibly, and the sincerity of which we may pardonably, doubt, after reading his *Autobiography*. So far as it is sincere, all his rhetoric serves chiefly to illustrate the fundamentalist's prejudice that the infidel — as the fundamentalist styles him — cannot himself live without the illusion of religion, but will inevitably turn to it when sick or sorry or sentimental. Plato anticipated the fundamentalist with the averment that there was no example of a man who had consistently believed and talked atheistic materialism from youth to

old age; experience and life cannot bear it.

I observed a curious illustration of this recently. A great convention of scientific men was presided over by a distinguished physician who for many years has been in his teaching a persistent advocate of the most uncompromising materialism. His philosophy left no slightest loophole for the intrusion of any soul into man or any guiding purpose into the universal machine. At the close of the final banquet he choked with emotion and said from the chair, 'God bless us all!' I was profanely reminded of O. Henry's (I think it was) shrewd observation, 'Stir the depths of your cook's soul sufficiently, and she will discourse to you in Bulwer-Lyttonese.'

If space allowed, it would be easy to show that there is no hard-headed scorner of what a British lecturer to American undergraduates recently satirized as 'the unseen hand that guides' who does not contradict himself as soon as he forgets controversy and proceed to describe biological structure in teleological terms, and support, as Mr. John Watson does, his personal notions of Utopia, reform, and the good life by the complaint that we are not living as we were *intended* to live.

III

But my object is not epigram, cynicism, or satire. As Emerson said in his essay on Experience, I have set my heart on truth in this chapter. And so I am bound to offer something more helpful, more constructive, as the current word is, than satire of others' inconsistencies. If religion is incompatible with a mechanistic materialism, and if most propagandist teaching of evolution implies, when it does not expressly affirm, mechanism, what is to be done about it? I can only

submit the reflections of a layman. The first thing to do is to challenge the materialist's philosophy on scientific grounds.

I shall waste no time on the standardized evasion, as old as Tyndall, that materialism is an equivocal term of abuse and calls for a new and more spiritual definition of matter. The admirers of Huxley — and I am one — protest that we must not call him a materialist, but an agnostic. But if his teaching and that of Tyndall come to the young and the layman in the epigram, 'In the beginning was hydrogen,' what is the difference? We all, including those who take refuge in this argument, know well enough what materialism means in this discussion. It means the denial of all possibility of a controlling purpose in the mechanism of the universe, or a soul in the mechanism of the brain. Now, with many eminent men of science, I believe that the first of these dogmatisms cannot be proved, and, not being wholly an amateur in psychology, I know that the second can be riddled at every turn by sound logic and observation. The materialist in neurology and psychology is not merely teaching bad metaphysics — he demonstrably misrepresents the facts of both neurology and psychology when he presents his doctrine to the public.

This is too technical a point for detailed elaboration here. But I repeat, with evidence to back me, that every neurologist or psychologist who teaches or insinuates materialism misrepresents the facts both of neurology and of psychology. As Mr. John Watson, the most conspicuous contemporary materialist, naïvely avows of his own book, 'Scientific nonessentials . . . are sacrificed in order to present the outline of the main theme in a manner agreeable to the nonscientific mind.' The practical meaning of this is that diagrams are

put into textbooks that do not represent the facts either of neurology or of psychology, but only serve to illustrate and create a presumption in favor of materialistic hypotheses.

The author sometimes does, and sometimes does not, accompany his distortions with a perfunctory and disregarded warning that his diagrams and illustrations are merely schematic conveniences or prophecies. But he does manipulate and rearrange his facts as inevitably as any popular expositor of Einstein and relativity. The excuse is the same in both cases: the public and the students would not, without this gentle soliciting of the facts, apprehend the higher and more essential scientific truth of the theory. It is the old theological casuistry and 'economy' of truth in a new guise. If this lay opinion of mine has, as it in fact does have, the support not only of many philosophers, but of a by no means inconsiderable representation of the most eminent men of science, it ought to be taught and inculcated in the college at least as insistently and fervently as virtual materialism is now taught, with at most a perfunctory disclaimer. It is not. On the contrary, evolution attempts to annex all the hinterland of history and the humanities.

An eminent professor of psychology and education testified at Dayton that evolution is indispensable also to the teaching of the mental, moral, and historical sciences. It would have been about as reasonable for me to go there and testify that evolution is not needed in the teaching of the biological sciences. There is no evidence that evolution is indispensable or helpful to the study of history, literature, language, art, and philosophy. If there is, will someone put one example in a letter and send it to me. In F. S. Marvin's *Science and Civilisation* there is a chapter on the influence of

Darwinism on thought and life. I went through it pencil in hand, and the two following vague truisms are the best that I could find. On page 204 he says, 'There is included in Darwinism a vindication of the general idea of evolution that the present is the child of the past and the parent of the future. That was indeed an old idea, but Darwin made it current intellectual coin.' It certainly was an old idea. It is simply the historical method. But what has technical, biological evolution to do with it? Darwin only made it a fashion and a fad, and too often an evasion of honest critical work. Secondly, he says, on page 211, 'We should have liked to show that Darwinism was the leaven that made psychology a new science, — comparative, genetic, and concrete, — but that in itself is a long story.' They always say that, but never produce even one definite, significant, concrete, new psychological truth that Darwinism or the biological method has established.

As a test take Professor Herrick's lucid and well-written book, *Brains of Rats and Men*. There is not one sentence in it that contributes anything new to the mental, moral, literary, linguistic, and historical sciences. If we think that there is, it will be because we get interested in the entirely different or, to us, new subject of neurology, or because we have never read either Plato's *Theætetus* or the psychological chapters of Malebranche's *Recherche de la vérité*, or Descartes as interpreted by Huxley, or the older English associationists, or because we are thrilled by the magnificent concession of the final sentence, 'Men are bigger and better than rats.'

Professor Herrick, unlike many other scientific men, gives ample warning that his diagrams are merely schematic. Yet they evidently create in him as well as in his students the illusion of an

explanation. And the only thing that really arouses his enthusiasm is the reiterated insistence on mechanism and the repudiation of anything mystic or purposeful. To scientific men, frightened by the Dayton trial, these dogmas have become a cult, almost a fanaticism. And they think they have proved the value of their results for the mental and moral sciences when what they have really found is at the most a confirmation of their own speculations. The value of evolution for them is that it proves evolution. The value of neurological psychology is that it demonstrates the existence of a neurological psychology. The value of the evidence for mechanism is that it proves mechanism. And they do not know what we mean when we keep asking for the slightest evidence of any other values apart from the, in their own place, inestimable values for biology and medicine.

Their arguments move in a circle. They call the hypothetical reconstruction of the skeleton of the Neanderthaler and of the psychology and religion of the cave men mental and moral science, and then cite them as examples of the contribution of such speculations to those sciences. Their syllogisms all have four terms. They coolly substitute evolution for the critical historical method, which, of course, is indispensable, and then infer that the teaching of biological evolution is equally essential to the study of all the humanities. Or, when they say 'historical method,' they mean the prehistorical method which, from the point of view of any sober criticism, is its opposite, and which, too long or prematurely pursued, actually unfits its votaries and victims for the critical study of history and literature, because it establishes an ineradicable habit of unverifiable hypothesis and *a priori* deduction.

I shall be completely misapprehended if it is supposed that I am disparaging these subjects as specialties in their own field. It is their premature intrusion in education, and the more or less avowed and conscious attempt to annex and dominate everything else, that I deprecate.

IV

But, to return to mechanistic evolution, what has all this to do with religion? Why, this. The explicit repudiation of materialism is the minimum foundation of faith on which anything deserving the name of religion can be built. If we are not wholly Tennyson's 'cunning casts in clay' or Plato's 'puppets pulled by strings,' if there is something — we know not what — more in us, there may be something — we know not what — more in the universe and in our destiny. If not, not. This is not a return to Herbert Spencer's perhaps insincere Unknowable. It is the affirmation that we know that systematic materialism is as unscientific as it is unphilosophical, and that this leaves the door open for hope and faith and Platonic fancies — yes, and for any harmless theological and historical symbolism that does not shock the moral sense, interfere with real science, or foster the persecution of opinion. This will seem to the fundamentalist a very slight basis for religion, and to the hard-headed rationalist a dangerous concession to superstition. But it sufficed for Plato and the long line of liberal Platonizing theologians from Plato to Shaftesbury, and from Shaftesbury down to and including that Victorian liberal, John Stuart Mill, in his posthumous essays on Religion. Happy, perhaps, are those who have more. But with less there can be no religion at all. And all religious perorations in the books of cosmogonical, biological, and psychological materialists

are to be taken in a Pickwickian sense. When they tell us that God is simply transmuted love, or, better yet, that God is a tear of love shed in secret over human suffering, or when they perorate about the things 'out there,' and write hymns to the God of energy with a capital E, and the omniscience, omnipotence, and holiness of truth with a capital T, the most charitable supposition is that the depths of the cook's soul are stirred.

But are we not overlooking ethical religion? That only, and not even natural religion, is the religion that Matthew Arnold so convincingly expresses for himself and for many of the finest minds of his generation and ours. It is the cult that the ethical-culture societies endeavor to establish as a recognized form of institutional religion. There is no doubt that 'morality touched with emotion' — sufficiently touched, impressively touched — is now a religion for some minds. But it is more than doubtful whether it can ever appeal to enough minds to take its place among historical religions, and it has yet to be proved how much of its efficacy it will retain for the second generation away from Christianity.

An exquisite writer and imperfectly Americanized retired Harvard professor, reverting to type, complains that even so scientific a mind as William James had come out into the open, but that the vast shadow of the temple still stood between him and the sun — the sun of unrighteousness, it would seem. Nietzsche, ridiculing the British, says in terms, 'They have got rid of the Christian God and now think themselves obliged to cling firmer than ever to Christian morality.'

As I have said, the future only will show how a generation that has never known even the refuge of the shadow of the temple will endure the glare upon life and the universe of the pitiless

publicity of science. It will save space and wasteful argument to quote Tennyson once more: —

Truth for truth and good for good! the Good, the
True, the Pure, the Just,
Take the charm 'For ever' from them, and they
crumble into dust.

Some materialists who have shut their idealism up in a thought-proof compartment may regard that as a deplorably low and selfish view.

Huxley himself waxes very eloquent in denunciation of Saint Paul's 'If the dead rise not, let us eat and drink; for to-morrow we die.' And the appeal to materialists to repudiate this thought in the preface to Ruskin's *Crown of Wild Olive* is one of the most glorious passages in English prose. The idea, indeed, that the spiritual and moral life is not dependent on such hopes is, like most ideas, as old as Plato. But still older are the words of the Homeric Achilles, 'Oh, Odysseus, gild me not my death. I had liefer be the poorest serf, the man with the hoe that tills another's field in the sunlight above, than lord and king over all the sapless dead.' The question is not whether a Huxley or a Ruskin could whistle moral idealism to keep his courage up, but whether the real feelings of ordinary humanity are not more nearly expressed by Homer, Saint Paul, and Tennyson.

Burke repeats the warnings of Cicero and George Washington against throwing off that religion which has hitherto been the one great source of civilization among us. He is fearful lest, since 'the mind will not endure a void, some uncouth, pernicious, and degrading superstition might take the place of it.'

The post-war young anarchy of which we are all talking, and which Mr. Philip Gibbs's so-named recent novel vividly portrays, may have many

causes. It is the standardized tactics of liberal and radical journalists and fictionists to laugh down the suggestion that the influence of the Darwins, the Nietzsches, the Anatole Franceses, the Remy de Gourmonts, and their American followers has anything to do with it. 'Look at Russia,' 'Remember the Greek Sophists,' are comic clichés of the satire of senility in all radical literature to-day. These satirists rarely offer evidence. But with time and the proper occasion I could produce abundant proof of the direct filiation between the ethical nihilism of present-day talk, and sometimes practice, and the literature of materialistic evolution, Westernmarckian anthropology, Marxian revolt, and the popular expositions, the textbooks, and the erotic and revolutionary fiction that make it accessible to the most bird-witted minds. Neither the victims of this inculcation nor the few 'reactionaries' who deplore it realize how all-pervasive, insistent, and dominant the propaganda of moral anarchism by writing and speech has become. The fashion of speech obsesses even those who cannot possibly intend to approve the doctrine. Mrs. Wharton herself in a late novel has caught the infection and says that moral scruples may be moral cowardice. Possibly, as a matter of ultimate psychology. But these are not the things whereby we may edify the released minds of an emancipated generation.

We have admitted for argument's sake that ethical religion, so called, may furnish a working code for a few minds of the quality of Matthew Arnold and Mr. Felix Adler. We have argued that natural religion, so called, and the repudiation of materialism may supply the sanctions of religion for many more to whom so-called orthodoxy has become impossible. Can we wonder that Bryan, whom I use merely

as a type, felt that the old fixed faiths and the Bible, literally or symbolically understood, — but more safely literally, — provide the only sure anchorage? There may be, then, in spite of the unanimity of the denunciatory chorus of science and the intelligentsia, something to be said for Bryan after all. Might it not even be made to appear to a sufficiently informed and open-minded judgment that, if the option is forced upon us, even Bryan is a safer teacher than Nietzsche or Anatole France or Strindberg or Remy de Gourmont or Mr. H. L. Mencken or Mr. Clarence Darrow?

For the most vociferous advocates of the causes Bryan denounced do not wish to preserve anything that the world has hitherto called morality. 'The herd-morality,' says Nietzsche, 'is good for cows, women, and Englishmen.' 'C'est beau, un beau crime,' says Anatole France, whom the academic audience of a great university admires so fanatically that a year or two ago they froze out a cultivated French lecturer who dared to hint a few courteously expressed reserves.

The criticism of evolution in Bryan's book is crude. But it is not more illogical or unfair than most attacks by laymen on things which they distrust but do not fully understand. It is not more unfair or ignorant than Voltaire and Ingersoll on the Bible, than most of the assailants of the classics, than Mr. H. G. Wells's history of the Roman Empire or the Renaissance, than recent radical historians' story of the formation of the Constitution of the United States, than any scientific man's account of the science and the philosophy of the ancients and the philosophy of Plato.

Bryan was a controversialist attacking evolution generally because he believed that its generalized propaganda, as an all-embracing dogma, is

dangerous to education, morals, and religion. He was probably as well aware as are his critics of the distinction between the agreement of biologists on the broad fact that some kind of evolution has occurred and their at present hopeless uncertainty as to the precise methods and processes by which it came to pass. 'Like all the great propagandists, he met prejudice with prejudice,' writes the most recent American apologist for Thomas Paine. Let those who are without sin cast the first stone at Bryan.

To consider one typical detail, his remarks upon the eye and upon the difficulty of believing that the too easily worked logic of the struggle for existence and survival of the fittest and natural selection really accounts for so complicated a coördination are expressed in language that would appeal to his audiences. He makes fun of natural and sexual selection, ridicules the development of just two eyes from the pigment, and asks why the light waves quit playing when just two eyes were finished. But the reasoning of the passage as a whole does not differ appreciably from that of Bergson's *Creative Evolution* on the same subject. Those who denounce Bryan as an American moron should explain that it is only the charm of his beautiful style that saves the French philosopher and academician from a like condemnation.

An English expositor of Bergson says that nothing less than a controlling design can explain the fact that the eye of the vertebrate and that of a mollusc, such as the common pecten, have developed retina, cornea, lens, *independently*. I have no opinion as to the final verdict of science on these nice questions. But I am confident that there is nothing in Mr. Bryan's writing more outrageous than a statement which I cull from Remy de Gourmont. 'Discontinuous light,' says

this oracle of the intelligentsia, 'created the eye precisely as the drop of water creates a hole in the granite.' *Ce n'est pas plus difficile que ça!* Obviously Remy de Gourmont cared no more for the patient exactitudes and suspensions of judgment of real science than did Epicurus, Lucretius, and Mr. Bryan himself. He and his kind are interested only in the affirmation of antireligious dogma as Bryan was in his own fundamentalist propaganda.

Technical problems are beyond the range of the present writer, and perhaps of some of his readers. But all literate mankind has or will claim the right to an opinion on the great decisions that determine our attitude toward life and education. Mr. Bryan and his followers were seriously alarmed by certain apparent consequences of the unqualified and indiscriminating propaganda of evolution in secondary and collegiate education. Shall we tax ourselves to damn our children, is the way they posterized it. Nietzsche, Bryan said, carried Darwinism to its logical conclusion. Radical weeklies and lecturers try to laugh that down by pointing to the alleged saintly character of Darwin and the higher spiritual interpretations that can be read into the gospel of the Superman and the Blond Beast. But for practical purposes Bryan was right. The general theory of evolution, said John Fiske long ago, is rapidly causing us to modify our opinions on *all* subjects whatever. He does not except morals, and his successors apply the principle by preference to them. Darwin has certainly destroyed the last of *their* 'ideological prejudices.' 'We shall not get infanticide and the permission of suicide nor cheap and easy divorce till Jesus Christ's ghost has been laid,' writes one of them.

But, before turning in conclusion to a few words about this problem, I can-

not forbear, in taking leave of Bryan, observing that his style, the naïveté of his logic and rhetoric, are from the point of view of the absolute reason little, if any, more absurd than those of his opponents. Perhaps none of us are qualified to judge our fellows from the point of view of the absolute reason; let us substitute such approximate designations of what is meant as common sense, relevancy, and literary good taste. I will not undertake the too easy demonstration that Mr. Bernard Shaw's preface to *Back to Methuselah* is far sillier and, for all its flashes of epigram, more muddle-headed than anything in Bryan.

V

I feel the greatest respect, nay, awe, for the leaders of American science. But they are human, and the pontifical authority and the immunity from criticism which their achievements have won for their most reckless pronouncements outside of their own specialties cannot be good for fallible human nature. And my ignorance is not likely to say anything as unfair as the abuse which they have showered, not only on Mr. Bryan, but on Professor Louis T. More's thoughtful and carefully reasoned volume, *The Dogma of Evolution*. If their scientific activities were really threatened, no reasonable controversialist would risk weakening their hands in any way. But when they come forth as authorities on religion, metaphysics, literature, education, criticism of life, Biblical and Homeric criticism, and the history of Greek philosophy, they invite the friendly tap on the knuckles that may recall them to their sober selves.

Those who venture into the twilight zone between science and pseudo-science make still wilder work. With no satiric intention, but merely as a

warning, I add a few typical examples of the kind of things they say when they let themselves go:—

'The ultimate question, therefore, is, Has evolution been a mistake?'

'The dog that barked at a feather moving on the lawn had the ethical idea that it was wrong for such a thing to move there. Many of our ethical ideas to-day are just as foolish.'

'Kant's cosmological argument is a fallacy. The heavens do not declare the glory of God, but the life of such a man as Charles Darwin is in truth a standing proof of the existence of God.'

'The religious sense tends to heighten the deeper we study the biological sciences.'

'When a vibration wave passing over a sensory nerve is gradually brought to a stop by the resistance of its synapse . . . its slowness passes through an infinity phase. I ask you to entertain the suggestion that the infinity phase of slowness is the common stuff of all sensations.'

The Middle West holds the record with three gems that on the stretched forefinger of all time deserve to sparkle forever. One linguistic, but not by a linguist: Our language is highly systematized; it has discarded useless inflections, and is therefore a superior medium of expression to the Greek. One on the history of philosophy, but not by a historian of philosophy: Among the Greeks the leading proponent of the evolution theory was, — you will never guess, — it was Aristotle, who taught that the world has existed from all eternity precisely as it is. One astronomical, but not by an astronomer: The old saying that an irreverent astronomer is mad can apply with equal force to the physicist; he comes to feel that his own intelligence is the supreme achievement of evolution. Perhaps Bryan was almost justified

in his coarse vernacular question, Can you beat it?

Having no better 'ole — I mean no more suitable pigeonhole — for them, I class with these naïve exuberances of the rhetoric of science all exaltations and exultations and sentimentalities in contemplation of the evolutionary idea. This category includes all expressed preferences for a simian to some other ancestry, from Huxley's famous retort to Bishop Wilberforce to the bathos about the heroic little monkey in the peroration of Darwin's *Descent of Man*.

It applies doubly to all the false logic that praises the amphioxus for having raised himself so high, and bids us rejoice that we have gone so far and may go so much further yet. Darwin began it with his 'Man may be excused for feeling some pride at having risen, though not through his own exertions, to the very summit of the organic scale.' Clifford attained the very summit of this absurdity with his 'If I have evolved myself out of something like the amphioxus, it is clear to me that I have become better by the change.' And now it is a commonplace of the rhetoric of popular lectures on evolution. Who, pray, is 'I' in that sentence? Are we talking Pythagorean metempsychosis and the myth of the tenth book of Plato's *Republic*? If undergraduates can be stirred with the rhetoric of such jumbles of gush, fallacy, false sentiment, and question-begging moralizing, would they not be more profitably employed in studying the elements of logic, and Longinus's warnings about the rhetoric of the frigid or false sublime style, before they attempt to master the evidence for evolution?

Grant that the biological evolution of our bodies has been proved by science and that the mature mind has got to face the facts — why, in the name of common sense and the clearance of the mind from cant, should anyone inculcate

this gospel on youth as glad tidings of great joy? Has anybody ever really answered the poet's protest?

Let him, the wiser man who springs
Hereafter, up from childhood shape
His action like the greater ape,
But I was born to other things.

Or, as a witty novelist recently put it, 'Bad beginning for people. But why speak of it? Do collie dogs have Darwins to prove that they were once hyenas?'

A few months ago a charming woman, her face all aglow with enthusiasm, asked me if I had seen the glorious news in the morning paper. They had actually found, in South America this time, a parietal or occipital bone of a missing link. (Please don't tell me that 'missing link' is unscientific — I have read that protest fifty times, but, like many unscientific expressions, it is a convenient, indispensable shorthand.) The exultant lady reminded me of a story which Professor Osborn will pardon me for stealing and sophistically wresting to my own purposes. He asked — I admit that he was jesting — the Archbishop of York if he knew why York was famous, and, when His Grace supposed it was for the beauty of the cathedral, solemnly rebuked him with the correction that it is because the oldest and smallest tooth in the world, the *Microlestes*, is treasured there. It was not, as the poor sentimental Victorian supposed, because man with 'splendid purpose in his eyes' had 'rolled the psalm to wintry skies' and 'built him fanes of fruitless prayer.'

I did not dash the lady's enthusiasm with argument, for she is the wife of a biologist, and it is the kind of wifely sympathy with her husband's specialty that a Greek professor's wife might, but I fear would n't, exhibit if he settled *hoti's* or *hote's* business in Homer or

discovered a shade of meaning in the enclitic *de* unobserved by the Germans, though I can't for the life of me see why that should not be quite as exciting as the triumphant proclamation that 'the age of the armored merostome arthropods is also thrust back to mid-Cambrian times by the discovery of several genera of aglaspidae.'

But, seriously, why should anyone rejoice at a little more technical confirmation of the conjecture, as old as Anaximander and Empedocles and Ecclesiastes, that we are born as the animals and have one destiny with theirs, or at some new evidence to prove the opinion that puzzled Socrates in Plato's *Phædo* — that life and sensation originate in a sort of fermentation of the elements of the *Urschleim*, and combinations of sensations account for all the fine ideas of the moralists and the metaphysicians? Or, if the editor of the *Atlantic* objects to a quotation from those obsolete classics that 'still linger' in Chicago, take the idea with all modern improvements in Professor J. Arthur Thomson's *Science and Religion*: 'By a process of natural synthesis . . . from some colloidal, carbonaceous slime activated by ferments.'

O star-eyed Science, hast thou wander'd there,
To waft us home the message of despair?

What part has our ephemeral consciousness in the strivings of the worm to be man as it mounts through all the spires of form, or in that future of the best or worst that must make haste to get itself evolved before the earth plunges into the sun or dries up like the moon?

Dead the new astronomy calls her, and the earth
itself shall die.

Are we merely whistling, so to speak, to keep our courage up? The sincere

believer in a creative, an emergent, an orthogenetic, a holistic, a divinely guided evolution may do this, and console himself with the poet's fancy that the emergent evolutionist

stands on the heights of his life
With a glimpse of a height that is higher.

But why should those who shut the door in the face of even this tenuous hope be glad? What ground for rejoicing is there in the philosophy of those who persistently admonish undergraduates that any doctrine but uncompromising mechanism is adverse to the progress of science, and that there must be no implication of any break between man and the animals in either biology or psychology? If that teaching is true, the only logical position is despair or forgetfulness of both past and future in the present, or the silent disdain of the French philosophic poet:—

*Et ne répondons plus que par un froid silence,
Au silence éternel de la divinité.*

VI

I threatened an excursus on the teaching of evolution in the college. I have left myself no space for that, and it does n't matter. The sixty-fourth volume of the *Proceedings of the National Educational Association* boasts

that in the year 1925 the grand total of its printed matter about education was 129,867,256 pages. Why should I swell the tide? The gist of my counsel to those who propose not to teach biology in the laboratory, but to lecture on evolution in general to the general body of undergraduates, can be pilulously compressed into a word. It is Punch's advice to those about to commit matrimony: Don't! Full soon their souls shall have their earthly freight — and their minds are already sufficiently unsettled. Or, if you must lecture, I can fall back on the precedent of my master Plato. In his *Laws*, writing in the rambling fashion of old age on morals and music and government and atheistic science and deleterious literature and religion and education, he pulls himself up and asks, 'But if the books now in vogue are objectionable, what shall we teach?' And he answers with a perhaps perceptible droop of the left eyelid: 'Well, on a survey of what I myself have written thus far, it seems to me good stuff and salubrious doctrine.'

I need not underline the application. If you will look for trouble by lecturing to freshmen on evolution, tell them more fully, more interestingly, more critically, more scientifically, something like what I have been trying to say in my amateurish and ignorant fashion.

TREMBLING EARTH

BY SAMUEL SCOVILLE, JR.

I

THERE are different ways of meeting a fiftieth birthday. Some substitute auction for action. Others stop eating the things which they like and live mostly on spinach until death relieves them of their sufferings.

'If I must be dragged into old age, it shall be backwards,' wrote Montaigne — and I agree with him and am going to set my heels in deep and hold back as long as possible against the grip of that toothless hag who at the last overthrows us all.

Accordingly, when I was invited to spend a week on a hidden island in the almost unknown depths of that great marsh which lies between Georgia and Florida, I promptly accepted.

The Seminole Indians, who once lived there, have christened those six hundred square miles of swamp 'Okefinokee,' which means in their tongue 'Trembling Earth.' It is there that the celebrated Suwanee River has its source, and there too can still be found the magnificent ivory-billed woodpecker, now nearly as rare as the passenger pigeon or the Carolina parakeet, and other birds and beasts unknown to everyday life. Moreover, the island which I was to visit was once a Seminole stronghold before that fierce tribe were driven down into the Everglades. Even now its mounds are occasionally visited by wanderers of that race who find their way back to the lost home of their ancestors.

A day and a night after the invita-

tion, and I stood at the beginning of a long channel which stretched away into the mysterious depths of the marsh. As I stared at its shimmering length, there flowed into my blood that joy of the wilderness which so many times has come to me upon approaching some unexplored fastness of the wilds. A moment later and I was in another world where everything was strange and new.

The bleached grass of the banks showed a pale ochre against the copper-brown water, in which strange green and violet lights gleamed, like those one sees in the depths of a black opal. The crimson keys of the red maples were the color of shed blood against the towering cypresses, shrouded with Spanish moss, which gave a curious touch of melancholy to the landscape.

Patches of small lilies, pearl-white with a tinge of crimson, — 'milk-and-wine,' the country people call them, — and drifts of snowy violets, with sepia pencilings within their exquisite petals, showed here and there on the banks, which were laced with muscadine and bamboo vine. Little waves of perfume floated through the air from the butter-yellow blossoms of the wild jessamine, which resembles the false foxglove of the North and has a fragrance like that of no other flower.

Suddenly, from the marsh beside the canal, a white heron with slim black legs and a yellow bill took flight and flapped away like a great, snowy butterfly, and I recognized the American egret, which I had only occasionally

seen as a rare visitor in the North. Here these birds were abundant everywhere. Perched on the tops of the cypresses, or rising from the Swamp where they fed, they added a touch of almost unearthly beauty to the landscape.

Then, as we rounded the first bend in the stream, three great birds, shadow-gray in color, with naked reddish heads, round black eyes, and long legs and bills, flew across the canal ahead of us. Unlike the herons, which always fly with a kink in their necks, these birds had their necks stretched straight out, as were their legs, and they presented a curiously stiff, wooden appearance as they flew. They were like no other birds that I had ever seen, and I suddenly realized that I was looking for the first time at a sand-hill crane, not so rare as his larger and almost extinct brother, the whooping crane, but still scarce enough to be an event for most ornithologists. Later on I learned to know their loud trumpet note, *kuk-a-row-ow-ow*, rippling across the marsh like the call of some giant tree toad. The birds themselves were among the wariest of all the marsh folk, never alighting anywhere except on the ground, and with their wild alarm notes doing sentry duty for all of the wild folk near them.

After several hours on the canal we reached an osprey's nest, a cartload of sticks in the top of a towering cypress. There we left the tiny canal and, using a curious three-pronged pole, the 'push-pole' of the Swamp, followed hidden waterways and secret marks through the very heart of the marsh, everywhere dotted with innumerable islets. Almost immediately I caught a glimpse of another bird strange to my Northern eyes, the anhinga, otherwise known as the water turkey or snake-bird. To me the adjective which best describes that bird is 'narrow.' His back was long and slim, his tail, nearly

a foot in length, seemed scarcely two inches wide, while his long attenuated black body gave him a strange, spearlike effect. The anhinga's conventional flight is three flaps and a soar. Usually when alarmed he circles up and up until a mere speck in the sky, but at other times the versatile bird will dive and swim under water like a fish.

Just beyond the first anhinga, my guide, a celebrated bear-hunter, Pungie Slaughter by name, lost for a time the winding, tangled waterway which he had been following like a clue through the maze of the Swamp, and we found ourselves confronted by a wall of shrouded cypresses. Zigzagging in and out between their trunks, we suddenly shot into a tiny, hidden lake, perhaps forty feet across, so encircled by the close-set trees that we never suspected its presence until we were floating on its smooth water. There it lay like a great aquamarine set in platinum, and it gleamed so lonely and lovely that I like to believe that no one else has ever seen it, save we two.

For a long time we floated in silence in the golden afternoon light that filtered through the ghost-gray Spanish moss. Then, as at last we reluctantly turned our boat toward the hidden entrance through which we had come, from the farther bank of that still, green pool a song bubbled out full of crystalline runs and trills, yet with a loud ringing sweetness in it which reminded me of the song of the Northern water thrush, as I have heard him sing in lonely forests from the tangle of roots of some overturned tree where he had made his nest. Yet the song which I heard on the bank of that hidden lake was not that of any thrush. There were strange cadences in its depths that I have never heard in the music of any other bird, and it ended in a wild strain of the same kind which 'charm'd magic casements . . .

in faery lands forlorn' for another sweet singer so many years ago.

For a long time we both sat still as stones, hoping to glimpse the unknown bird, but he kept out of sight in the tangle of undergrowth which stretched away before us. Then, even as I feared that he had gone, the singer showed himself in a tangle of cane at the water's edge. His bill bewrayed him as a warbler, but not one which I had ever seen before. For a minute he reminded me of the worm-eating warbler with its striped head, but this bird had a white stripe over the eye, and I finally identified him as the Swainson warbler, that rare bird which Dr. Bachman found near Charleston in the thirties, at the same time that he discovered the other warbler which bears his name. Like the Bachman, the Swainson for many years was never seen again, and remained practically unknown until rediscovered in the eighties. This one was grayish brown in color, with a reddish-brown crown, while the broad white line over and through his eye was his most obvious field mark.

II

The setting sun gleamed through the trees like a vast incandescent ruby as we approached the end of our journey. Crossing the last wide stretch of open marsh, we came to a dark clump of cypress trees. Swinging around the largest one, we found ourselves at the beginning of a hidden waterway hardly broader than the width of the boat, which had been cut through the undergrowth and along which we pushed our little craft for over a mile until we reached Secret Island, one of the most beautiful of all the known islands of the Swamp.

As we landed, a mocking bird sang his afternoon song, the most delicious melody which I have ever heard one

of those great performers give. I counted nine distinct staves of his song before he began to repeat, nor did he deign to imitate any other bird. His florid, sweet song reminded me of the Carolina wren, the brown thrasher, and the cardinal grosbeak, yet with a phrasing and beauty all its own.

Before the bird had finished singing, Uncle Billy, the caretaker of Secret Island, came out to welcome us. He was a little man less than five feet in height, with a martial white moustache, bristling white hair, a pair of wistful blue eyes, and a soft voice, and for months at a time lived in the Swamp without seeing a human face. Almost immediately we became fast friends. He had a tiny cabin about a hundred yards from the little bungalow between the two live oaks, where I was to stay, and there he, Pungie, and I pooled our knowledge of cooking and produced some very respectable meals.

'No, suh,' said Uncle Billy, as we sat around his little cookstove after supper, 'I don't have no time to get lonely here. There's always so much doin' with the birds comin' an' goin' an' the flowers a-bloomin' an' the different animiles on the island. Sometimes it seems as if I could hardly keep up with 'em all. Yes, suh,' he went on, 'I've lived in the Swamp all my life an' I reckon I'll die here. Onct I went away an' stayed a long, long time to see if I could get used to livin' outside, but I was n't happy a single minute till I got back.'

'How long did you stay away, Uncle Billy?' I inquired.

'Two days, suh,' he answered.

As we all sat together on a little bench in front of his cabin, while the soft dark spread like a slow stain across the marsh, I could see the belt of Orion, that mighty hunter, gleaming overhead, with Saiph the Sword Star shining at its side, while below, Sirius

gleamed green in the fell jaw of the Dog. Then, well below that constellation, I glimpsed an unknown star close to the edge of the horizon, and for the first time in my life looked upon great Canopus, that wild, blue-white star of the desert which led Mahomet out to conquer half a world. Only in our southernmost states can it be seen.

While we were talking, a company of Florida barred owls began to hoot in the distance, their notes sounding like the deep-toned bay of some great dog — *who-who-who-who-who-ah*. All at once they broke into a perfect chorus of ghastly shrieks, like that company of fiends which Christian heard in the distance as he was crossing the Valley of the Shadow of Death.

Then, across the narrow island, which is only half a mile wide, from the black depths of the Swamp came a deep booming bellow with a snoring note at the end, an indescribably wild, menacing, arrogant sound.

'That's an old bull 'gator,' explained Uncle Billy. 'He's the biggest thing in the Swamp an' listen to him say so,' and once again the ground fairly trembled under the deep-toned roar of the great saurian, the challenge of the reptile to the mammal, almost as menacing as the roar of a lion.

At last it was time for me to turn in.

'Wait a minute an' I'll light a lantern for you,' said the old man.

'I don't need a lantern, Uncle Billy,' I assured him. 'It's only a hundred yards to go.'

'Son,' said Uncle Billy, earnestly, 'it ain't far, but if you go without a lantern you're liable never to get there. Do you see that chap on the wall?' and he pointed out to me the skin of a magnificent diamond-back rattler as wide as both of my hands, with twenty-one rattles and a button. 'Well, suh,' he continued, 'them babies do their huntin' at night. I was goin'

along after dark on the same path you're goin' to take, when I heard a rattlin'. It seemed to come from all sides o' me, an' I stood like I was froze an' yelled my head off for Rid Chesser, who was stoppin' with me. He came out with a torch, an' there, not a yard in front o' me, was coiled up the snake who owned that skin. Rid, he came as fast as he could, but if you leave it to me, he was over twenty years a-gettin' there. He hit the ol' snake a clip with his torch an' bruk his back. If I'd a moved one inch after that old-timer's alarm clock started, I'd be six feet underground to-night.'

'Yes,' Pungie advised me, 'you take a lantern, an' when you go through that patch o' dwarf palmetto you step kind o' high an' proud.'

Needless to say, I carried that lantern and probably stepped higher and prouder and slower than any man who ever visited Secret Island.

Just as I reached the little house where I was to sleep, there was a glow in the dim lavender sky, and very slowly the rim of a dull orange moon thrust its way above the ghostly live oaks. As it rose higher in the sky the trees were silhouetted against the sepia and silver water, and a still, unearthly beauty spread like a mist over the whole landscape.

As I sat on the top step of the porch and stared unbelievably at the loveliness spread out before me, the same mocking bird who had welcomed me at twilight began to sing low and sleepily. Then, as the moon climbed the sky, his song became louder, and I fell asleep that night in the pale gold moonlight with his wild, sweet cadences thrilling in my ears.

III

Early the next morning, just as dawn began to glow through the shrouded trees, I was awakened by

another song, entirely different from that of the mocker, and in its way much more appealing. From the top of a great slash pine close to the house came a pure strain of exquisite tenderness. The sound had all of the silver, flutelike quality of that song of the field sparrow which floats across darkening pastures in the North. In it too was something of the pathos and spiritual quality which one hears in the song of the hermit thrush. Hurrying into my clothes, I slipped out of doors and identified the unknown singer as a pine-woods sparrow, one of the most beautiful singers of all his large family. As the light became stronger he flew away, and I heard him only that one morning, but his limpid, crystal-clear song is among my best memories of the Swamp.

On our way across the prairie that day, a long dark animal rushed into the water from a little island. Its heavily furred body was so sinuous as to seem to flow along the ground as it shot through the bushes. Pungie identified it as an otter, and for a long time we pursued it by the line of air bubbles rising through the shallow water beneath which it swam.

As the sun rose higher and the marsh warmed up, Pungie suddenly pointed his finger toward a dim black mass showing in the bleached grass at the edge of a pool some ten feet across. I focused my field glasses on the spot and with difficulty made out the outlines of a huge, serrated body, black as death. There was something abhorrent to me in the monstrous figure — perhaps an instinct handed down from the ages when mammals were fugitives and weaklings among the dragons of the prime.

As we came closer, I could see that the eyes of the great 'gator were closed. Dipping his pole into the water without a sound, Pungie drove the boat swiftly

forward. Suddenly, when we were not more than thirty feet away, a turtle slipped off a log into the water with a splash. At the sound, two murky, fathomless eyes opened in the alligator's head and stared at us inscrutably. Then the crocodilian raised itself from the ground on four bowed legs, with an awkwardness which disguised the real swiftness of its movement.

Once I saw a toad approach an unsuspecting insect. Instead of hopping, it stalked forward on bent legs with a stealthy, swift, menacing movement. As I watched the alligator move, he reminded me of a great hunting toad. The body was carried high on bent, tense legs which could shoot it forward with unexpected swiftness, and as I looked I was glad that I was not within reach of those black jaws.

In another instant the great reptile had reached the edge of the pool and slipped into it with hardly more of a splash than a turtle would have made. For a moment the end of his muzzle and his two protruding eyes showed above the water, and then disappeared.

Our next meeting with this dark king of the marshland was out on the open water, when we saw what seemed to be two knots on a sunken log some distance ahead.

'That's a big ol' he-one,' said Pungie, and, as we approached, the black dots suddenly disappeared. Immediately Pungie stooped until his head was close to the water, and gave several deep grunts, an imitation of the love notes of an amorous alligator. At once the ominous knobs showed again, but went under as the boat reached them.

'Let me take the pole and give him a poke. Perhaps he'll come up again,' I said rashly.

'Now I would n't never go pokin' no ol' bull 'gator. Howsomever, do as you like,' objected Pungie.

With the idiocy of ignorance and

relying upon divers authorities which state that alligators never attack humans, I thrust the pole down until it grated upon the ridged back of the monster hidden beneath the brown water, hoping that he might come to the surface again. He did! As I prodded the ridged back, it was as if a depth bomb had suddenly exploded beside me, as, with a tremendous splash, the bent, ten-foot body of the alligator shot above the surface like a black bass breaking water. I had one glimpse of a huge lashing tail, and then two grim jaws clashed together so close to the boat that they splashed water all over my face as the great 'gator fell back with a crash, nearly swamping our tiny craft.

For once Pungie showed speed.

'This ain't no place fer you an' me,' he exclaimed, snatching the push-pole from my nerveless hands, and with a mighty shove he shot the boat a dozen yards away from the mass of foam and bubbles the alligator had left behind.

Fifty yards farther on he came to a halt and regarded me severely.

'Don't you never do that again,' he commanded. 'That ol' bull was snappin' fer your hands. If he'd caught 'em he'd a pulled you under an' rolled you until you was drowned dead. He'd a hid you up under some bank until you softened up a bit an' then he'd a et you. Don't you never poke no 'gator again.'

'Well, Pungie,' I gasped, 'if you feel that way about it, I never will'—and I never have.

Pungie told me of a similar experience with a porpoise.

'They're like 'gators,' he said; 'kind o' sudden. Once when I was fishin' with Zeb Kahler at Limb Sound we seed two porpoises comin' toward us. They was goin' under the boat like they allus do, an' I told Zeb I was goin' to jab one of 'em with the oar. "Don't

you," says he — but I did. Each one of 'em was about ten feet long, an' I poked the front one right in the middle o' his fat back. The next thing we knew we were lyin' in a mud flat fifty feet away, with our boat upside down beyond us. Both o' them darn porpoises had rose up under us an' shot us through the air, boat an' all, like as if we'd been blowed up by a torpedo.'

The very next day after my experience with the alligator I had another reptilian adventure that was even more trying to my nerves. Pungie and I had been searching for the trail which led to Bugaboo Island, which was reputed to be haunted and where the ivory-billed woodpecker was said to be found. I was sitting in the bow and bent my head as Pungie pushed the boat through a fringe of bushes. Even as I did so there was a thud behind me, as if someone had dropped a piece of heavy fire hose into the boat, and I heard Pungie give a gasp. Then at my back came that sound which no man born of woman may hear unmoved — the fierce, thick hiss of a snake. Glancing over my shoulder, I saw the head of a monstrous serpent rising from the bottom of the boat not a foot away. As I stared helplessly at it, the grim mouth slowly opened, showing the white lining which marks the dreaded cottonmouth moccasin. The snake had been basking in the upper branches of a bush and, startled by our approach, had tried to slip into the water, only to land in our boat.

It was the largest water snake that I have ever seen and must have been fully five feet in length and thicker around than my forearm, dingy brown in color with dark blotches showing faintly along its back.

I had nothing in my hands, and my legs were so cramped that if I tried to stand up I should undoubtedly fall out of the boat. Moreover, the snake

was so close to me that any attempt on my part to move would probably be met by a dart from the curved, movable fangs I could see faintly showing in the white gum of the upper jaw.

I sat still, very still, watching the snake over my shoulder. It was so close to me that I could plainly see the curious pit between the nostril and the eye, which is found also in the rattlesnake and the copperhead and which gives their fatal family the name of pit vipers. The glassy, lidless eyes with their curious oval pupil, the hall mark of a venomous serpent, had an expression of cold menace quite as threatening as the fierce glare that shows in the eyes of the larger Carnivora when enraged.

A diamond-backed rattler, with its higher tension and more irritable temperament, in a similar situation would undoubtedly have bitten me. A moccasin, however, although it will open its mouth and hiss when approached, rarely strikes unless actually touched. Once the great cold-blood turned its hissing head toward Pungie, who gripped his pole like a pole vaulter ready to break a record.

For what seemed to me a long time I sat motionless, until at last the menacing mouth with its white satin lining closed, the great heart-shaped head thrust itself over the gunwale of the boat, and the monstrous body flowed after it smooth as oil, and, with scarcely a ripple, disappeared in the water.

'I don't mind a bear,' confided Pungie to me a few minutes later, 'though some folks get flustered when a big she-one charges, grittin' her teeth an' smashin' down the bresh. A big ol' rattlesnake or a moccasin, howsomever, gets my goat every time, they look so kind o' unfriendly like.'

On our way back we came to a dead cypress, white as bleached bone. On one of its limbs, perched in a row, sat

six black vultures, my first sight of that grim bird. Although smaller than the turkey vulture and with less expanse of wing, the black vulture is yet a heavier bird. The sextette showed no signs of alarm even when we came close, but sat regarding us fixedly out of their red eyes like a dark company of witches.

Beyond the vultures we found a shaded pool from which Pungie dipped me a drink of the celebrated Okefinokee water, a rich golden brown in color, with a curiously soft, spicy taste. After drinking it for a few days I came to like it better than any other water. In the early part of the century, captains of sailing vessels used to fill their casks from the upper reaches of St. Mary's River, which rises in the marsh, and at the end of a two years' voyage the water would be as pure and potable as when first used.

My days and nights on the hidden island and in the heart of the great marsh passed all too swiftly. There was fishing, such fishing as I had never expected to find on earth — large-mouthed bass, jack, bream, blackfish, and perch. The flowers and the trees were new to me and all strangely beautiful, and everywhere were the birds of the South — red-bellied woodpeckers, blue-gray gnat catchers, prothonotary warblers all gray and gold, and a score of others whose songs and habits were a continual delight.

Then, all too soon, came the day when I had to leave those lonely wilds and go back to live among the tame folk.

'I wisht, I wisht that you'd spend a month here with me,' said Uncle Billy, wistfully. 'We'd have such a good time together watchin' the birds an' flowers an' critters.'

'I'll come back, Uncle Billy,' I promised.

'Yes,' he said. 'Once drink swamp water an' you'll allers come back, but — I may not be here when you come.'

LOW PRUDENCE

BY ROBERT HILLYER

MANY years ago a philosopher, addressing the seniors of Dartmouth College, warned them of the world into which they were soon to go forth as a place governed by maxims of a low prudence. He urged them to be bold, be firm, in holding fast by the intellect, to seek truth and beauty though the world mock them. Why should they, he said, give up their right to traverse the starlit deserts of truth for the sake of an acre, a house, and a barn?

How vague these phrases sound to us now, though less than a century has elapsed since they were spoken. Modern ears like not an abstraction, for in receiving it they must transmit to the mind something that demands thought, definition. Emerson spoke of beauty and truth, but these terms we reject, unwilling either to seek out his meaning or to find one of our own. We have not the time for such speculation. Besides, so overwhelming are the problems of the moment, which may be solved, that we cannot give heed to the problems of forever, which we know cannot be solved, even though — and of this also we are aware — man's intellectual energy is most nobly employed in the attempt to define the abstractions from which he sprang and into which most certainly he will return. Whence did man come? What is his good? How shall he live toward Nature who creates and destroys him? We laugh these questions away as fit only for green minds, not because they have been answered, but because they cannot be answered, and we will have

naught to do with effort unproductive of substance. So we interpret life in terms of expediency, as though the fabric were cracking and our sole concern were to patch it here and there for a few more trips to the well.

Yet surely it is no sign of incompetency to attempt definitions of the abstract. History shows us otherwise, and even Nature provides us with a pretty analogy against such an assumption. Our concise bodies are knit together from the vast earth — definitions in flesh of ineffable desire. Our minds, too, are devised to lay hold on tremendous concepts and compress them into a single thought. Why should we be impatient if that thought must give place to others more in step with forward-pacing truth? Our bodies are not immortal, we cannot cling to them beyond their span; yet by implication we require of our thoughts a permanence not vouchsafed even to the stars. Like children exasperated at a difficult puzzle, we fling the whole problem from us because we cannot complete the elucidation. Philosophy, in the greatest sense of the word, has disappeared.

The philosophers themselves were the first to withdraw from their wide heritage. The teachers, now wholly seduced by facts, followed them. And at last literature has succumbed. We may study Plato, Epicurus, Plotinus, if we will (though few of us do), but rare is that teacher, even of so-called philosophy, who can discourse on them as intimates, and rarer still the

philosopher who contemplates, as they contemplated, the mysteries that nourish the spirit even while they defy the reason.

Literature was the last to leave off speculation. Of the novel little need be said, for that form of art was never the natural vehicle of philosophy. But the disaffection of drama and poetry left human thought voiceless. In modern writing we find sociology, that degenerate grandson of philosophy through ethics, and psychology, its equally degenerate cousin, yet at their best these are poor substitutes for the grander meditations so congenial to the normal man. For the most part, literature has surrendered to an extreme individualism, and devotes itself to tracing the reactions of a single mind or — and this applies especially to modern poetry — describing unrelated sensations. The pyramid of literary technique is upside down, all its weight converging on one not very important point.

However, literature was the last to lose consciousness, cosmically speaking. The religious leaders and the philosophers themselves, to whom in the past men were wont to look for spiritual refreshment, were the first to fly the field. Priests and ministers have not bestirred themselves, except in quibbles, for so many years that we have ceased to think of them as a part of the intellectual republic. Few would seek out a clergyman seriously convinced that they would see through his eyes a universe illumined with new possibilities. Yet perhaps this test is unjust. The tradition of the priesthood has never fostered speculative thought. No doubt the sacerdotal quarrel as to whether or not Amon was in fact assumed into the substance of Ra represented a high level of priestly speculation in Egypt, though the question may not now seem of importance. I

think we may safely exonerate the religious from responsibility for those greater questions which remain unchanged through the centuries. But the philosophers we cannot exonerate.

We have it on their own authority that science has closed against them the gates of that spiritual Eden wherein their predecessors were wont to stroll in the cool of evening, surrounded by their disciples. Yet I understand that the scientists, or at least such of them as ponder the matter at all, declare that the gates are as far open as ever, and that for their part they are merely interested in the physical composition of the universe. No honest scientist deviates, except as an amateur like you or me, into a contemplation of the First Cause. Indeed, he has no license to do so, for science is exact, whereas the problems of philosophy, in spite of its logic, must remain by their very nature inexact both in their posing and in their conclusion. No laboratory has been built wherein the existence of the soul can be proved, nor has truth yet been distilled into a test tube. The scientist who swept the heavens with his telescope and found no God was a dull fellow after all. I might just as well say that I have beaten the bass drum and have seen no lightning. Examining this matter, we find that the scientists are entirely blameless. It is not they who have invaded the field of philosophy; it is the philosophers who are attempting to fasten scientific methods on wholly unscientific material. Should we bring the subject down to a specific example, we might consider Ouspensky's use of Einstein's mathematics. Strange and wonderful are the ideas on which philosophy thus squanders the hard-earned penny-facts of the scientists.

Of these purchases, perhaps psychology (still known as a branch of philosophy, but verily the devourer

of the parent stem) is the gaudiest. Stretching the philosophic license of speculation beyond the wildest fantasy, it gravely claims scientific exactitude for the conclusions it derives therefrom. Incidentally, a rather pathetic proof of man's eagerness for any sort of thought is the avidity with which he has picked up the crumbs dropped from so starved a board as that of modern psychology. Our speech bristles with complexes, the subconscious, and sublimation. Doubtless Greek conversation was embellished, in much the same manner, by references to the Word, the Spirit, and the Elements. Both may be jargon, but something more than the illusion of the past makes us find in the Greek a nobler turn of speech.

Instead, therefore, of urging people's thoughts toward those larger horizons toward which they naturally turn, psychology, our substitute for philosophy, ascribes even these thoughts to an aberration of the human mechanism. Not many years ago we feared to dream lest our sins find us out. At that time many of us, exasperated beyond measure at the corruption and scattering of Freud's highly specialized theories, longed for a Leonardo, who, it will be remembered, when all the world was hysterically groveling before Savonarola, sardonically amused himself, during one of the fanatic's sermons, by drawing a hideous caricature of him. Lacking a Leonardo, we took comfort in this quotation: 'The foundation of it all is essentially unscientific. . . . It would be impossible to give any detailed conception of the treatment of dreams. Nor would the attempt reward the pains; the curious specialist must read the treatise for himself. He will find in it one of the most astonishing efforts of besotted credulity to disguise itself under the forms of scientific inquiry. He will

find a subtlety and formalism of system worthy of a finished schoolman of the fourteenth century, and all employed to give order and meaning to the wildest vagaries of vulgar fancy. The classification of dreams is a great effort . . . and is followed out in exhaustive order. . . . It would be wearisome and even disgusting to give examples of this futile and almost idiotic superstition, masquerading as a science.' The quotation is not, as one might well believe, from an attack on Freud. It is Samuel Dill's commentary, in his *Roman Society from Nero to Marcus Aurelius*, on the interpretation of dreams as practised by one Artemidorus at the height of the Roman Empire. Certainly that society found Artemidorus as important as we found Freud, but it had also its Marcus Aurelius, its Seneca, its Epictetus.

Furthermore, it had many teachers who, though they contributed little to the main stream of philosophy, directed eager youth to the deeper channels where he might launch his bark. But what of our teachers, who discourse in lyceums, academies, even in universities? Surely they would be the last to succumb to maxims of a low prudence. Though all the world desert philosophy and follow the changing demands of the stock market, the teachers, frugal and meditative, should be counted on to encourage youth in his long, long thoughts and permit him to wander, during those four brief years, in a plaisance secure from the bruits of a factual world. It matters not that most young men consider their college course as but a link in the ordinary development of business, a help in obtaining a more lucrative job, an opportunity to meet advantageous friends. That pure love of learning, to which the teachers have dedicated themselves, will foster

the natural speculations of youth, and, whereas he has come expecting water, they will give him wine. Though the student's motives be uncertain, the teachers' are pure.

And in fact, desirous of academic advancement and more money, the teachers have yielded to a stranger system than will be found in all the vagaries of high finance. Submitting their free minds to a set scheme for gathering facts, abandoning their love of ideas for a narrow channel prescribed for those who would be successful before the world, they undergo a certain treatment for a term of years and come forth stamped with the ironical title of Doctors of *Philosophy*. If this be not following the maxims of a low prudence, coin was never minted. Why should youth, beholding his most enlightened elders devote themselves to a fantastic system, seek other than the doctrines of expediency? If gold rust, then what shall iron do?

Writers, philosophers, teachers, they have all left the ancient love, the writers finding their talents best employed in chronicles of sensation, the philosophers in devising new theories concerning the brain and the nerves, the teachers in peddling facts. We merely laugh at youth when, in a characteristic mood, he 'discusses the Universe,' believing, indeed, that such discussion is proper only to adolescence. We have forgotten that the most mature races, beside whom we should appear but as children, found in their relation to life a subject of keen interest. The cosmic speculations which, without encouragement or guiding, spring up on the campus of an evening or during the lunch hour in a broker's office are the first shoots of

a hardy plant that in other ages has brought forth man's fairest blossoming. Why have we blighted it with our laughter or cut it off with our insistence on 'more important things'? To be sure, great thoughts are greatly demanding. Yet, viewing the antics of the wealthy and their hangers-on in avoiding thought, we cannot believe that thought involves more labor than the escaping of it. Rather, we shun philosophy because we are impatient of anything which cannot reach completion before our eyes, which cannot by tangible result justify its inception. The nature of the soul we leave to our neuropath, who tinkers us into a semblance of sanity for a few more years; for ethics we have substituted a code that we obey or defy according to our impulse. Whatever we do, we fly from those deeper questions the mere asking of which sets us apart from the beasts of the field.

Let none accuse me, however, of advocating an outburst of vague speculation. We have enough of that in the intellectual slums where the thousand and one cults make ridiculous the very name of God. The life of thought is a profession; its brotherhood is called to an arduous and aloof task the performance of which may not, in the time being, show perceptible result. Yet the times are favorable for philosophy. The Church cannot, even though it would, obstruct the thinker's programme. Most important is our need for philosophy. We cannot rebuild this subtly undermined world, we can do nothing but patch it from day to day, until arises in our midst a fresh conception of the heights toward which we shall raise our towers and the depths that shall support them.

THE SEA BOY

BY CAPTAIN WILLIAM OUTERSON

I

IN the narrow space of the ship's after deckhouse were four bunks, two fore and aft and two athwartships. In front of the lower fore-and-aft bunk, on the deck, was a wooden sea chest, its top slightly smaller than its base, with grummets spliced into cleats on each end. Into the lower bunk, and partly on top of the chest, some articles of clothing had been carelessly thrown: a pair of rubber boots, a heavy reefer jacket, blue cloth trousers, a pair of thick woolen socks, and a heavy blue muffler.

On the outboard bulkhead hung a narrow, hinged table, held up when in use by two triangular wooden legs that swung inward from the bulkhead. On the edges of this board were polished hardwood rims to prevent the dishes from sliding off in heavy weather. A suit of yellow oilskins and a sou'wester hung from a hook in the uprights supporting the after end of the bunks. A paraffin lamp with a clean globe, faintly glowing, hung in gimbals fixed to the bulkhead.

In the upper fore-and-aft bunk a young boy was sleeping the profound sleep of the sailor in heavy weather. Judging by the motions of things in the room, the movement of the ship was unbelievably violent, yet the boy's sleep was not disturbed. As she rolled to starboard his head and body sagged sidewise, inert and flaccid; when she lifted to the urge of the seas he sank and flattened into the mattress. In

her abysmal drop to the trough, as swift as a falling stone, he seemed for a brief instant to float, untroubled and unconcerned, between bed and blankets.

The suit of oilskins on the hook, capped by the steadier sou'wester, contrived a riot of fantastic motion, weird and surpassingly idiotic, in the dim glow of the lamp. The legs of the pants swung forward together, then flew apart; the arms of the coat waved helplessly, in flapping movements like gestures of hopeless resignation; the whole suit with all its limbs outspread swung wildly in a sweeping curve, then arms and legs collapsed and fell against the upright beam with a soft slap. It squirmed against the steel support, like a yellow scarecrow hanged by the neck and dying.

The lamp moved with ease and dignity. Having been designed and constructed for this sort of thing, it remained erect and efficient, bathed in its own halo, unaffected by the labored distress of the ship, which might heave and plunge to her heart's content without endangering its expert balance. There seemed a sort of magic about it, the appearance of a quaintly useful conjuring trick which man has played against the rage of the sea.

The sea chest was solid, with joints carefully closed to make it water-tight. Its rope grummets were lashed with stout cords to the uprights at the head and foot of the bunks, which at first had been drawn taut to allow no play whatever. But the wetness and the violence of the ship's motion had

loosened the lashings. When she rolled to starboard the chest slid smoothly an inch or so till stopped by the tautened grummets. As she rolled to port it came back against the lower bunk with a gentle thud.

The table was almost barred from this fellowship of motion. Held rigid at the hinges by the unyielding bulkhead, its flap fastened on the underside with a brass hook, it appeared securely gripped. But even so it moved a little. Within the eyebolt, where the hook fitted, there was just a mite of play, and with each movement to starboard or to port the flap took up this play with a steady, almost clock-like click.

It was a marvel how the tanned, fair-haired boy in the bunk could have sunk from this bedlam into the quiet stillness of sleep. The sounds within were subdued, recurrent, intimate, the voices of familiar things, friendly and useful. But the clamor on the deck outside was the outcry of an alien world, torn by the struggle among those ancient antagonists, a roaring wind, a driven sea, and a stubborn ship. The noise of the storm, subdued by the heavy steel walls of the deckhouse, came through as a hard, droning scream, deepened from time to time by the muffled crash of seas breaking aboard, like the distant booming of a minute gun fired by a ship in distress.

Aft on the poop a boy, closely bundled in oilskins, detached himself from the shelter of the weather cloth and the stability of the shrouds to which it was lashed and staggered to the binnacle, inside of which a small clock showed the time to be fifteen minutes to four. Reaching for the rope of the small bell on the cabin skylight, he struck one tinkling chime that was lost in the storm before it was fully born.

'They'll never hear that,' he thought,

peering into the murk ahead, all his attention strained to hear the answering stroke of the ship's bell at the break of the forecastle. None came, and he began to work his way to the taffrail on the forward end of the poop. Up here there were no seas coming aboard, but the motion was a dance of madness. Over the glass panes of the cabin skylight were gratings of brass rods, set firmly into the hardwood sashes. Gripping these, the boy steadied himself to the end of the skylight. From there to the end of the companion hatch was an open space of five feet, through which the wind blew with the force of a hurricane. Across this he dived and gained the lee side of the hatch, where he was sheltered from the wind. The hatch was made of teak, polished smooth and varnished, and offered no projections to serve as handgrips. But the boy was wise in these matters. The wet surface of the wood was sticky and roughish from rain and salt sea spray, and by pressing the palms of his hands against its rounded top he maintained his footing and reached its forward end.

From there to the taffrail was a clear twelve feet of wind-swept deck. Watching his chance when the ship heaved her starboard scuppers out of the water and swung her decks level for one uncertain moment, he dashed for the rail. The wind caught him and carried him to starboard so that his course was slantwise, but the continuing cant of the deck opposed the power of the wind, and he arrived at the forward corner of the rail with an ease that brought him a faint sense of triumph. Here was the end of the speaking tube that communicated with the lookout.

Twisting the whistle out of the mouthpiece, the boy blew into the tube with all the force of his vigorous lungs. The shrill scream of the whistle

at the forward end of the tube reached the expectant ears of the man on lookout, who came aft to the watch and called, 'One Bell!'

Struggling to the after end of the deckhouse, one of the men descended the iron ladder to the sea-swept main deck, clawed his way forward in the lee of the house and the forehatch, and struck the ship's bell once with all his force. Stumbling then to the door of the starboard forecastle, he wrenched it open, tumbled inside, and pulled the door quickly shut, then raised his voice in a strident yell to wake the watch below.

Clinging to the poop taffrail, the boy waited, crouching down on the rail, one arm thrown over it, the other hand clasping the neck of the vanishing tube, until his ears caught the vanishing note of the bell forward. When it came he replaced the whistle in the mouthpiece, moved across the short space to the head of the starboard ladder, and seized both its rails with a nervous grip. Descending step by step, he slid his hands carefully down the rails, never for a moment relaxing his hold, watching the wild white water foaming from port to starboard with the motion of the ship. A heavy sea had just come aboard, flooding her fore and aft, and he waited on the second step from the main deck until it had found its way out through the bulwark ports.

When the chance came, and the after deck was clear of water, he left the ladder and ran for the house, missed it and slid with a clatter into the scuppers, gained his feet again in a moment and charged for the house, caught the brass ring of the lock, and held on grimly while the ship reeled insanely to starboard. When she steadied enough and he regained his balance, he turned the lock and jerked the door open, jumped inside and pulled it shut,

heard a monstrous sea fall aboard forward, and listened for a few seconds to the sound of the rushing water. Then he raised his shrill young voice in a savage, exultant cry, stepped to the bunk in which the fair-haired boy lay sleeping, and shook him with rough decision by the shoulder.

'Now then, you sleeper,' he chanted, 'wake up and turn out. One Bell's gone.'

The boy in the bunk heaved himself up to a sitting posture, and regarded the other with tragic wide blue eyes, aching for further sleep.

'One Bell!' he exclaimed. 'It can't be One Bell yet. I've just fallen asleep.'

The dark-haired boy yelled with derision.

'That's the way I always feel at One Bell,' he cried. 'But it's One Bell now, all right, and no mistake about it, so you tumble out and get your clothes on.'

He stepped to the door and opened it cautiously, peered out to consider his chances, turned his head swiftly toward the bunk and saw the sleepy boy scrambling out on to the sea chest, then pushed the door open and leaped out, flung the door to with a bang, and raced for the poop ladder.

II

The fair-haired boy balanced precariously on the top of the sea chest and pulled on his pants over the woolen underwear in which he had slept, wrapped the slack of the legs about his ankles and drew the thick socks up over them, dragged on his rubber boots and stood on the deck, jamming himself between the chest and the table flap until he had put on his vest and reefer and muffler. Over these he coaxed the sticky oilskins, the legs and sleeves of which he tied with many

turns of tarred yarn around the wrists and above the ankles. He was now practically water-tight, ready for the boisterous deck. As Eight Bells had not yet struck, he sat on the lid of the sea chest and gazed pensively at nothing, his eyelids, now that his activities had ceased, beginning to droop over his sleep-haunted eyes. He was a very young boy, not yet fourteen, and this was his first voyage to sea, the realization of a dream that had colored his waking, and sometimes sleeping, hours as long as he could remember.

At this particular moment he was not sure that the dream had possessed any single element of reality. Things were very different from the bright picture his boyish imagination had painted before the beginning of actual experience. The work, so far as he was concerned, seemed to be a mixture of such duties as are usually performed by the humbler class of servants ashore. In fine weather he swept the decks, swabbed paintwork, polished brass work, coiled up ropes, cleaned the Mate's room once a week, went aloft to overhaul buntlines and leech lines and make them fast with a single turn of twine that would break easily when required, and in all weathers he was timekeeper, striking the hours on the little bell on the cabin skylight. Some of these tasks seemed to the boy to be flunky's work, altogether foreign to his notion of the sea. But the work had to be done, as the Mate had once told him, and there was nobody else to do it. That was what they carried boys for.

These, however, were small matters compared with others—sleep, for instance. He never got enough sleep, and just now he was desperate for it. On this night he had slept for something like three hours and a half, and his ungrown brain and body yearned

for more, for whole long nights of sleep. But he had to go on deck for four hours. That was well enough. He liked to stand behind the weather cloth, watching the straining ship and the leaping seas, and keenly aware of all the sounds of their warfare. That was a sailor's life as he had dreamed of it. But just at this moment what would he not give for a few hours' more sleep. His eyes closed against his protesting will, and his head dropped slackly forward.

The dark-haired boy on the poop stood gazing into the binnacle at the face of the small clock inside. Just as the minute hand touched twelve he seized the bell rope and struck vigorously eight times, four double strokes, *ting-ting, ting-ting, ting-ting, ting-ting*. The pallid tinkle of the little bell, its farcical inadequacy in all this tumult, moved him to passionate scorn. He dived across the reeling deck, wrenched the whistle out of the speaking tube, and blew a furious blast. A few moments later, as he stood tensely listening, he heard the chime of the ship's bell, faint and far away, and charged down the ladder, seeing a clear deck to the after house.

Wrenching open the door, he shot his head and shoulders inside, saw the bowed head of the fair-haired boy, and emitted a startling yell: 'On deck the Watch! Eight Bells! Shake a leg, there!' He slammed the door shut, scrambled to the weather side of the house, plunged into his own room, and in less than three minutes was sound asleep in his bunk.

The fair-haired boy jerked his head up at the howl of his shipmate and rose swiftly to his feet. Sleep fled from his eyes, and his face became composed and wary. Thrusting the door slightly open, he peered out, and felt the situation to be safe for the moment. Her starboard side was reeling upward,

and there was no heavy water on the deck. He skipped outside, slammed the door, and raced for the poop ladder, slid on his feet against the after hatch, but did not check his advance, and reached the ladder safe and dry. He was well on his way up when she shipped a heavy sea that curled over the bulwarks from fore-castle to poop and filled her main deck with boiling white water. Hauling himself along the taffrail to the weather side of the poop, he joined the Mate behind the weather cloth, hooked his arm around a backstay, and peered through the darkness at the Mate, whose big bulk loomed beside him, shadowy and vague to his eyes, but very clear and definite in his mind as the acting centre of power and authority. The Captain was the source, the origin, and the symbol of supreme command, but he moved in a different orbit from officers and crew, lived in a higher sphere. He was quiet, affable, kindly, but remote and inaccessible, not familiar and abusive like the Mate, who was intensely human and roamed the decks with his eyes everywhere.

The boy liked the Mate, although he often dodged him, kept out of his way as much as possible, and avoided to the best of his ability, being a sane and healthy boy, the unimportant flunky work that was left for him to do.

On this wild morning the Mate ignored him completely, was only briefly aware that he had come on deck and forgot him immediately, his mind being occupied with that bitter, impotent revolt against the sea which is the mark of the true seaman. From his rich and shocking vocabulary he was silently choosing the strongest words he could find to express his contempt for sailors. He cursed the ship and the crew, the owners, the sea, and himself, chiefly himself, and wondered with sardonic self-pity why he

had not been a farmer. The idea of a farmer expresses an ancient contempt fostered by men of the sea for men of the farm, and it pleased his present humor to double the scorn of the term by referring it to himself. At varying intervals he asked himself, with an exquisite fury of sarcasm, 'Who would n't sell a farm and go to sea?'

His feet well apart, his left arm hooked around a backstay and his right hand gripping it, the boy was safe from the hazard of the reeling decks, and felt only a keen exhilaration from the ship's motion. The weather cloth gave him complete protection from the wind, and a feeling of deep enjoyment possessed his mind. He loved the storm, the turbulent roar of the wind, the rising and falling scream of the rigging. His mind moved slowly from one sound to another. He heard it, felt and followed it for minutes, let it sink into his soul. He knew the shuddering crash of the heavy seas as they broke aboard: just a booming sound and a trembling of the hull at first, followed swiftly by rushing, slapping noises as the tumbling water met the smooth sides of the forward house and the coamings of the fore hatch, then a noise of broken rapids while the water rushed from side to side across the deck with the rolling of the ship.

The boy began to feel the approach of six o'clock, when Four Bells had to be struck. He brought his mind to the task of getting across the poop to the little bell. He shifted his grip and moved to the after edge of the cloth, waiting until her decks were rolling up from starboard, then walked with short steps sidewise against the slope of the deck toward the bell, bracing hard against the enormous wind as he left the shelter of the weather cloth.

Looking into the binnacle, he saw

that it was ten minutes to six. The Mate noted his absence, looked round and saw his face illumined in the light of the binnacle, and turned his gloomy eyes forward again. The boy decided to wait beside the bell for ten minutes, not caring to make the passage to the weather cloth and back again. But his position here was too unsheltered, and he turned toward the wheel, which was lashed hard up and had no man at the spokes while the ship was hove-to. The wheel stood in front of the wheel box, a teak structure with a low gable roof in which were the worm gears that reduced the strain from the rudder to the wheel, giving the steersman an immense leverage. The boy went round the wheel to the lee side of the box, sat down, and lowered his head to get shelter from the wind. In a moment he was asleep, caught by outraged nature as suddenly as by the blow of a hammer in the dark.

The Mate looked round again in a few minutes, saw no sign of the boy, knew at once what had happened, and cursed him under his breath. He was not unsympathetic, — it was hard enough for a seasoned old seaman like himself to stay awake sometimes, — but discipline must be enforced, and the man on lookout had to wait till Four Bells before he could be relieved. The Mate let go the backstay and staggered to the bucket rack where water buckets with brass hoops were kept. The first in the rack was half full of water; he picked it up and made his difficult way to the wheel box, and saw the boy sprawled backward, utterly asleep. The Mate drew back the bucket and dashed the water into the sleeping boy's face.

To be wrenched out of deep sleep by any sudden stroke of pain or acute discomfort, deliberately inflicted, is an experience shocking and indescribable. There leaps to life in such a moment

something that is better left undisturbed. The boy sprang up convulsively, lost his balance and fell, rolled down against the rail, heaved himself up and turned toward the Mate. He could barely distinguish the form of the officer, but in his ears rang the laughter that had greeted his frightful awakening, a sound that seemed to him obscene and apelike. He was a Scot, the son of a hundred generations of men utterly intolerant of oppression. Mad fury flamed in his heart, and he took a step toward the Mate. Had the boy been just a few years older, that officer would have gone down to the lee scuppers, Mate or no Mate — aye, or the Captain himself. But full awakening came swiftly, and the boy's anger died as quickly as it had been born. He was at fault. He was asleep on watch, the one unforgivable sin in a seaman. A sleeping sailor had more than once brought ship and crew to sudden appalling death.

The Mate swung suddenly to the binnacle and glanced at the clock, which showed the time to be six o'clock. Striking the bell four times, he looked at the dim figure of the boy over against the rail.

The boy saw the movement and heard the tinkle of the bell, became at once the ship's timekeeper again, and listened intently for the sound of the bell forward. It did not come, nor had he expected it would, and he made his way to the forward taffrail and blew four powerful blasts into the speaking tube. The lookout heard the signal and passed the word to the watch, one of whom went forward and struck Four Bells.

The Mate worked his way forward to the bucket rack and replaced the bucket, then crouched forward against the wind and gained the shelter of the weather cloth, where he resumed his ceaseless watch. The boy heard the

faint strokes of the ship's bell from forward, and, replacing the whistle in the tube, made a circuitous course to the weather cloth. The Mate turned as he arrived and gripped him by the shoulder, shouting into his ear against the roar of the storm, 'Don't you ever go to sleep on watch again!'

'All right, sir!' shouted the boy, his mouth close to the ear of the Mate, who nodded in the blackness and turned away.

III

The boy began to be aware of a slowly growing distinctness in the dim bulk of the Mate, a thinning and refinement of the darkness, which seemed to be transforming itself, magically, into something else. A wordless emotion, immeasurably old, of joy and worship combined, came down from ancient men who feared the night, possessed him as he watched the advance of day. Somewhere the sun was heaving up over the rim of the world. Here his approach was hidden by the murk of war, a wrack impenetrable of twisted cloud and driven scud. The light came through slowly, revealing the foam-streaked sea in the stormy dawn.

Now his small world lay open to his charmed and watchful eyes. The violence that had tossed him back and forth in the unrevealing darkness he could see and understand in the gray gloom of day. The Cape Horn Sea, range upon range of foaming crests tormented by devils and rushing to destruction, advanced upon the ship in endless ranks. There seemed to the boy enough of these to press the assault forever, but he was not afraid. His faith in the ship was limitless.

When the light of day became broad enough, the seeing eye of the Mate, roving aloft, halted and stayed upon a loose end of gasket, whipping like a

pennant in the wind on the mizzen upper topsail yard. The sail was furled, the ship being hove-to under main and mizzen lower topsails and a storm jib, and the yard was down. The loose end worried the Mate. If the whole gasket worked loose, the wind would rip the sail to ribbons in no time, might carry away the yard and lose the lives of the men sent aloft to make it fast. He turned to the boy and shouted, pointed to the yard and the forward house where the watch were standing by. What he said was to send a man to the mizzen upper topsail yard to make that gasket fast.

The boy did not hear the words, but he saw the loose rope and knew it had to be made fast. Being a first-voyager, he was never sent aloft in heavy weather, but if he remembered this he ignored it, controlled by an obscure desire to make good, to atone for his crime of falling asleep on watch, to show the Mate that he was of some account where seamen's work was concerned. He charged away from the weather cloth and gained the bridge leading from the poop to the after deckhouse, went along this easily, securely gripping the handrails, and gained the top of the deckhouse.

Pausing here, he watched the deck for a favorable opportunity, descended and dashed to the weather mizzen shrouds, scrambled swiftly into the rigging and began toiling upward. He did not see the frantic fling of the Mate's arm, and heard no whisper of his bellowed order to come down out of that. He heard nothing but the thunder of the storm, felt nothing but the pressure of the wind at his back. In his heart was a great elation, an acceptance of the struggle between the gale and himself.

As the ship rolled into the wind he was forced irresistibly against the

rigging, jammed breathless against the shrouds with an immense pressure that held him helpless. As she rolled to leeward the weight lifted from his back, and he scrambled up a distance of four or five ratlines. Intent upon his task, he did not know that the Mate on the poop and the men on the forward house were watching him steadily.

‘Good Lord,’ the Mate prayed inwardly, ‘don’t let that fool boy go over the side!’

The men did not pray. They were rough men, hard, ignorant, resentful, users of obscene and blasphemous language. But they were wishing the boy good luck on his venture and helping him on with silent encouragement. Every one of them wanted to go to his assistance, but there is a feeling among sailors in such matters, an unwritten law that neither man nor boy shall be humiliated by having his work taken out of his hands, proof that he is unfit for his job.

The boy waited a moment or two, his hands securely grasping the futtock shrouds and his feet on a ratline of the lowermast rigging. The futtock shrouds are heavy iron rods leading outward from the upper end of the lower rigging to the edge of the top, making an angle with the horizontal of something like forty-five degrees when the ship is on an even keel. The top is a platform fixed to the head of the lowermast; to its edge are bolted the lower ends of the topmast rigging. On either side of this platform, between the rigging and the mast, is an opening called the lubber’s hole, through which a man may crawl if he does not care to risk the climb over the edge of the top.

For the space of a breath, the boy considered the lubber’s hole. He knew that on a day like this he might go through it without loss of self-respect. But he had no intention of doing so; the

possibility of avoiding the dangerous outer passage had merely entered his mind. He waited till the ship was nearing the end of her roll to starboard and the futtocks were perpendicular, then he started up, making very sure of his grip. In a second or two he reached the edge of the top and grasped the shrouds of the topmast rigging—the most dangerous moment of his journey, because his legs were held at a forward angle so that his feet could rest on the ratlines of the inward sloping futtocks, and the middle of his body was pressed against the edge of the top. The thing to do was to lean his body outward, clear of the edge, and this he endeavored to do in order to give his legs free play, but the ship rolled back to windward and the pressure of the gale held him jammed against the top, unable to move. The Mate and the men held their breath. The ship stopped her weather roll and whipped her masts back to leeward, and the boy started up over the top, but missed his footing, and his legs swung out behind him, all his weight on his desperately gripping hands. In another short moment he would have been torn from his hold and nothing but a miracle could have saved him.

The Mate leaped to the main deck to go to his rescue, but a sea came aboard and washed him back to the foot of the poop ladder. Seizing the handrail, he mounted a few steps, clear of the churning water on the deck, cast his disturbed eyes aloft to the mizzen top, allowed a sigh of relief to escape from his hairy chest, and returned to his place behind the weather cloth.

The ship ended her dizzy reel to leeward and hung for one trembling moment almost on her beam ends, her masts inclined at such a slant that the boy’s legs fell against the futtock shrouds by their own weight. He

immediately found his feet and climbed into the topmast rigging. After a struggle he reached the level of the upper topsail yard and worked his way cautiously on to the footrope, crawled out on the yardarm to the loose gasket, and made it well fast. The work done, he came into the rigging and descended to the top, halted in that comparative haven, both arms embracing the rigging and each hand grasping a shroud, lifted his head, and looked out over the wild sea. In that moment he saw the unforgettable sight of his life: a three-masted, full-rigged ship running before the wind with all sail set. Involuntarily he flung his arm out toward that vision of magic or mirage, as it seemed to him, and the watchers on the deck saw what he saw.

The motion in the top was more violent than on deck, and there was no protection from the battering wind, which forced the breath back into the boy's throat and seemed likely to tear him from his double hold and carry him away to leeward. But neither danger nor discomfort made any impression on him then, his soul being wholly engaged in watching the driving ship. She came storming along in a smother of outflung foam, a living thing of power and beauty and most compelling majesty, charging across the colossal seas and thrusting them aside. He watched her diving into the trough, and wondered, appalled, if she would ever come up again. Behind the intervening crest he saw her disappear, hull and courses and topsails, till only her topgallants and royals remained in sight. From the deck she was wholly lost to view. But in a little she rose again, topsails heaved into his vision, courses lifted above the spume, her dripping bowsprit stabbing the scud, her trenchant forefoot leaping clear of crest and

tumbled foam. Lost in amazement and rapture, the boy clung to the thrashing backstays above the top and gazed with all his eyes, receiving on the tablets of his memory an impression so deep and strong that it remained forever indelible. Neither the passage of the years nor the growing mass of later experience could dim the beauty and the thrill of that picture of the sea.

She passed close by, a hundred fathoms at most, her men scrambling into the fore rigging to send forth a cheer, a message of sympathy and encouragement that came faintly through the storm like the cry of a child in the wilderness. The greeting was answered by the men on the forward house, but the boy remained silent, too deeply stirred for outward display.

In a moment she was gone, fled away into the gray gloom and faded into the drifts of foam and spray and low-flying scud, only her milk-white wake remaining to tell that she had passed. The boy sighed deeply and returned to the deck.

In the eyes of the Mate was a look somewhat resembling that which dwelt in the eyes of the boy, but mingled with scorn and weariness, as if he too had dreamed a dream and seen a vision, but awoke to find it deceitful and meaningless. It had been his intention to rebuke the boy for going aloft in this sort of weather, but when he saw the light in the young blue eyes raised to his he lost this design, and only told him to see what time it was. The boy went aft and saw by the binnacle clock that it was eighteen minutes past seven. He extracted the lamp from the binnacle, opened the little glass door and let the wind blow out the pale yellow flame, replaced the lamp, and struck Seven Bells. Being now visible to the men on the forward house, who were anxiously awaiting the end of their watch on deck, he was seen

striking the cabin bell, and the ship's bell forward was struck immediately after.

IV

When Eight Bells went and the blue-eyed boy was relieved, he got an enameled plate and hook pot from his room and, with earnest prayers to the gods of the sea to spare his breakfast, made the trip to the galley. Here he received a sufficient quantity of oatmeal porridge, which sailors designate 'burgoo,' a pot of hot but otherwise doubtful coffee, and a half-pound loaf of newly baked soft bread—this last a treat which was enjoyed only three times a week. The loaf of soft bread was a treasure to be guarded at any risk short of life itself, and the boy had moments of terror as he turned from the galley door with both hands full and realized that he might lose it on the way aft.

He went with swift but cautious steps along the lee of the forward house, emerged upon the open deck, and leaned against the gale, casting anxious glances toward the weather bulwarks, where drops and little pools of restless water were whipped into quick spurts of spray by the searching wind. The main hatch, covered with rough tarpaulin and raised two feet above the deck, gave surer footing than the slippery planking, and also provided safety from all but the heaviest water. He reached the end of this and stepped to the deck, hope rising higher every instant. But the sea had been balked long enough. The ship, miraculously dry for all these minutes, gave a sudden lurch to windward, a movement strange and unexpected, which switched the deck from under his feet and brought him down, still holding to his coffeepot, his plate of burgoo, and his coveted loaf of bread.

Brought by her sidewise movement

right under a stupendous wall of water, the ship did not have time to rise to it, and the sea came over, green from the bows to the break of the poop. The roaring flood caught the boy in its rush, and washed him like a chip toward the fife rail. He dropped his coffeepot and plate of burgoo and shot forth a desperate hand to find a grip, but the intolerable weight of water tore him loose and swept him aft, flung him from rail to rail, dashing him against the after hatch and the jigger fife rail and finally against the foot of the poop ladder, where the powerful hairy hand of the Mate swooped down and drew him out of the snarling water, heaved him up against his chest, and carried him to the poop, where he set him on his feet. The boy coughed and spluttered, shook the water from his eyes, and looked up at the Mate with a smile, his soaked and uneatable bread still clasped in his left hand. The heart of the Mate was touched, but he gave no sign of any emotion other than amusement.

'Are you wet?' he grinned.

The boy laughed, glanced at the disintegrating mass of stuff in his hand, and tossed it over the side.

Back in his room again, the boy sat on the sea chest, both elbows on the raised table flap, slowly munching a dry ship's biscuit, there being neither beef nor butter nor marmalade in his locker. He was tired and very hungry, and a little despondent, thinking of home and its comforts, of the sheltered life he had led before he came to sea, of his prosperous, genial father, his beloved mother. The dry biscuit became suddenly distasteful, and he tossed it listlessly into the bread kid.

There came to his ears a faint drumming sound of footsteps on deck, the door was suddenly wrenched open, and the bearded face of the Mate thrust inward.

'Here, boy!' he shouted, pushing a bundle across the table toward him. Then he slammed the door and was gone. The boy opened the bundle, which was wrapped in a clean towel, and found three cabin rolls, buttered, each one almost as big as the loaf he had lost, a pot of hot coffee with milk and sugar in it, and a slice of beautiful boiled ham. The manner in which he disposed of these delectable viands was, perhaps, as complimentary to the cook as to the Mate, but the cook certainly received no credit in the

boy's mind when his hunger was fully satisfied and he prepared to turn in.

Drifting ineffably on to that smooth and magical slope which leads downward to the wells of sleep, the sounds of the wind and the sea came to him refined and beautified. Other sounds were coming from the deck, voices and thumping of boots, and the shrill wailing cry of the dark-eyed boy, who had gone on watch:—

'Loose the fore tops'!

The wind must be going down, he thought; they were setting sail.

THE TRADING POST. II

Letters from a Primitive Land

BY HILDA WETHERILL

April 27

HERE'S a conversation I have about twenty times a day:—

CUSTOMER. How much left?

I. Nothing left.

CUSTOMER. Really?

I. Really. Nothing left.

CUSTOMER. But I gave you fifty cents. Give me five cents' worth of raisins and five cents' worth of stick candy.

I. Really, you have nothing left. Coffee twenty-five cents, one orange five cents, one package of red dye ten cents, tobacco five cents, cigarette papers five cents. Nothing left. You know there is n't.

CUSTOMER. *Ya-de-la*. I forgot the tobacco. I put it in my pocket.

The women are the worst, and how they do rant and rave if they think they can make me believe they are short a

half dollar. They'll argue for hours, and it's often cheaper to give them the money outright than to have them go home angry and tell everyone they have been robbed.

Yesterday they came early and stayed late — almost all night, in fact. About 9.30 P.M. we drove the crowd out and made for bed. Ken was almost asleep, Betty was snoring, and I had reached the cold-cream stage when definitely, though faintly, I heard that blowy whistle a Navajo drives his horses with. He keeps up a continual noise of shoing, whistling, and 'Get up, there!' in English. I take it he thinks the white man has discovered a language the horse understands. Anyhow, I heard the freighters coming — two four-horse teams from Gallup.

I screwed the lid back on the cold-

cream jar; Ken got up and dressed. I put on a kimono and hunted frantically for strings to tie up my stockings. The teams came to the platform in front of our door and unloaded. All the savages came in again and stood around and impeded traffic as we carried flour, coffee, canned goods, oranges, tobacco, sugar, handkerchiefs for headbands, and corduroy pants. I checked the load and tried to understand the remarks they made about my appearance. Can you see the picture? Almost midnight, coal-oil lamps, piles of freight, savages, and the one woman present in a kimono and a pigtail.

We are having another plague of whiskey in the neighborhood. Someone among the Indians, and we suspect our own crack freighter, is selling whiskey. Many of our near-trusted stand-bys are prostrate — with headache. We have been unable to catch one of them with liquor, but its effects are evident enough. It's a case for the police, I think. I hope we can give them a scare — not the police; the bootleggers, you understand.

May 5

Perhaps I did not tell you about the cherry-red plush coat. It was full length, and that means to the ankles, red plush lined throughout with black sateen. There were five pockets. When my part of the work was finished the owner put five buttons made of half dollars on the front, seven or eight made of dimes on each sleeve, one on each lapel, and seven on the slit up the back that I had made so he could ride in the coat. It was gorgeous. The first day it was in his possession, he gambled and lost it. At once he came in and ordered another, but we were out of the plush and have never been able to get it.

May 18

I've just seen something that you'll hardly believe. I am doubting even

though I've seen it happen. A Navajo first aid — and I must say the doctor would probably have come too late.

The freighters who are going out tomorrow with wool for shipment are camped here for the night, and a boy about fifteen was putting twelve head of mules into the corral. One of the mules kicked the boy, one foot hitting his shoulder and the other the back of his head. If he had been an inch closer, he would have been killed. The boy's father, his grandfather, and Ken saw the kick and saw the boy drop. Ken, of course, started toward him, but the Indians stopped him. Old Utcity, the grandfather, and a big doctor himself, came into the store and called everyone inside. The boy's mother, who was cooking supper outside, came in with her two little tots and sat down on the floor; the father came in and stood with head bent and arms folded.

A doctor not related to the boy went out alone and down to the corral. I came into our room and looked out of the window, though Ken told me not to, because the others did n't, and he would n't.

With a little medicine bag in his hand, the medicine man walked slowly to the corral gate. There he stood for an hour, or five minutes, — one can't estimate time under such conditions, — and then he zigzagged into the corral, sprinkling medicine out of the bag. When he reached the boy, he took pinches of something out of the bag and dropped them on or around the boy. He made motions in the air as if he were driving something away. I think it was about ten minutes before he stooped down and helped the boy to his feet. The lad walked slowly and painfully about. The doctor followed him, making signs and pushing away something imaginary. They came out of the corral, went by the house, and disappeared over the hill.

The family went outside, but made no move to go near the boy. After a little the mother followed the boy, but came back almost at once. Ken walked around where he could see and saw the boy lying on the ground out of sight of the house. We waited and watched, and surely the Indians must have been doing the same, but there was not the least appearance of uneasiness or watchfulness on the surface.

After a little the boy moved into the hogan where his grandmother was staying because her sons-in-law were here, and if any son-in-law sees his mother-in-law they both go blind. I went out to speak to the old lady and take some oranges to the boy. He was lying by the fire with a shawl under his head. The next morning he was sore and aching, so the father got another Indian to drive his team and took the boy home.

During the treatment, neither boy nor doctor made a sound, and there was no emotion on the part of anyone except myself.

June 1

The amount of silver under our counter is diminishing rapidly. I wish the last piece were gone, but there's no possibility that that will happen. No, a large stock of silverware on hand does not mean that we are competing with Rogers '47 or with a later make. It means that at wool-shearing season most of the pawn is redeemed and taken away. This silver is the silver money that has been hammered into beads, belts, rings, bridles. It is an Indian security and one of the trader's greatest worries.

Every Indian owns at least one necklace of silver beads, with a crescent-shaped pendant — the arms of friendship, they call it — hung by the middle of the curve. Sometimes this is mounted with turquoise, sometimes it is plain.

On each side of the pendant plain silver beads and four-petaled squash blossoms alternate.

At any time an Indian can take off his beads, pass them across the counter, and say, 'Give me ten dollars in trade and keep my beads until shearing.' Perhaps each member of the family will do the same, and every other family, until the trader has dozens of strings of silver beads worth from fifteen dollars each to three or four times as much. It is no small responsibility to house this treasure, I assure you, and there's many a long argument as to just how much each piece is in for. At any time the owner may partly redeem his possessions or get more credit on them, and the difference between the successful trader and the failure lies in the pawning sense and the collecting ability.

It is very poor policy indeed for the trader to say to the Indian who has just sold his wool, 'I'll just credit your account with this money.' A Navajo will not forgive that. He wants to handle the money, and if he does not feel inclined to pay his honest debts, that is the trader's loss.

Sometimes an Indian will hand you the forty dollars you have just given him for a sack of wool, to redeem his silver bridle. Then he will pass the bridle back to the trader, pawn it for forty dollars, and trade the money out. Of course the trader does not want a silver bridle. It is no good to anyone but the Indian, and he wants it only once a year when he dresses up to go to the *Yabachi*, the harvest-home dance. At that time he comes to the trader, borrows the bridle for a week, if the trader will let him have it, and brings it back at the end of the week. The rest of the time it is hanging among the trader's white elephants under the counter.

Many a trader has been shot and his store burned because he lost pawn.

June 15

Every once in a while I have a feeling that this is n't I, and that all I am seeing is unreal. Do I actually see these Indians, the rough landscape with its scrubby trees, its scant grass, its lizards and coyotes, its water holes and trails — trails everywhere, with horse, cow, and sheep tracks and moccasin prints; not a dwelling for miles at a time, and then often smoke, but no dwelling?

The hogans are dirt-covered and are an exact match for their surroundings. Unless one sees the blue smoke in the air, one is not likely to see the habitation at all. A real hogan is a work of art. It is domelike, with a smoke hole some three feet across at the top. As you stand on the inside, the structure seems to be a large inverted basket made of peeled poles. The outside is covered with dirt put on moist enough to pack and smooth over the surface so it will shed rain and not blow away in the high winds.

Even in the coldest weather the hogans are so warm that the family remove part of their clothes when they are going to stay inside for a time. The men wear what I call hogan pants. I have made many of them out of unbleached muslin, cretonne, or sateen. They are made like a sailor's trousers, but are slit up the side so the owner will have another place to sew silver buttons.

The basketlike interior of the hogan is soon smoke-stained and dark in color, but there is plenty of fresh air and sunshine coming through the smoke hole. Household utensils are few. The cooking things are put away, more or less clean, in a wooden box.

There is a great demand for the empty boxes the canned goods come in. I can appreciate the Indian need of the boxes, because that is my own style of furniture. A box is something rare and valuable. I was scolded by an indignant housewife for breaking one up to build

a fire. She said I should get dry wood and bark from the trees and save the boxes for my friends who needed them in their hogans. I feel corrected, and shall save the boxes from now on.

In houses where I sometimes call to see the progress of a blanket I am allowing credit on, or to see a sick baby, they keep a box for me to sit on. Once I sat on the skins on the floor with the Indians, and both of my feet went to sleep. I can't tell you their word for that condition, but they understood what had happened, and ever since have been very good about keeping a box for me. They will say, 'Come over to our house and sit on your small square box today,' or 'Give me a box. Your old box is broken and there is no box for you at my house.' When they say that, it seems that I should give them a box; otherwise a box is ten cents.

All the small crevices between the poles of the hogan are shelves and hiding places to tuck things away. The rough knots are to hang things on, and the weaver's loom is supported by the overhead poles. In nice weather the weaving is moved out to a summer shelter of green boughs.

Of all places, a hogan was never designed to walk about in. You come in and sit down at once, because as long as you stand the smoke circles about the room, and when you sit down it ascends in a straight column to the smoke hole. You need to have your eyes full of this cedar and piñon smoke but once to make you feel that blindness is upon you.

July 23

Our Old Lady and two of her daughters arrived to call and to return the beads, bracelets, and medicine basket that they borrowed for their big sing. The Old Lady herself was the star performer. Such a sing is a curative or healing ceremony and is more interesting than the call.

The ceremony begins with a sand painting. I went early and found the high and mighty medicine man, a stranger to us, arranging a cushion of green boughs and ripe grass. When he had finished that he made a big suds of yucca root in a basket. This he placed before the boughs and sprinkled both with powdered leaves of some sort. All the time he was singing, and other singers with rattles sang with him.

Now the Old Lady took off her shirt and moccasins and knelt on the green boughs. The doctor or medicine man took down her hair, took off her beads, wet her head, and then washed her beads while she washed her hair. He poured the rinse water over her head. Never before had I seen an Indian man make himself useful to a woman in the least degree.

When her head was washed, he washed her feet and sprinkled her back, and I began to think he was going to help her off with the only skirt she had on; but three women came in and held robes to make a screen while the Old Lady finished her bath to the music the singers kept up.

After the bath, they told me there would be nothing more to see for a time and I could go home and come back about noon. I did. It was when I returned at noon that I saw the sand painting. It was so large there was barely room to sit one deep around the walls of the hogan.

It was done in black, white, red, blue, and yellow sand, and was beautiful beyond anything I had expected. The design was four stalks of corn, representing the corn god, with ears and silk on each. On the top of each stalk was a square head with arms and hands, one hand holding a large ear of corn and the other a ball. On each top corner of the head there was a tassel and on top of each tassel a bird, and a good bird he was, too. Around the foot and two sides

of the whole was a framelike stripe with corner posts of turkey and eagle feathers. Every line of the entire picture was clear and perfect.

At one side the Old Lady sat on a pile of new calico, covered with a buckskin. She was sans shirt and shoes. While the chorus kept up a steady number, the doctor painted her. A dazzling sight, I assure you.

The colors were mixed very thin and smooth by rubbing the little balls of colored clay on smooth, flat stones, dipping the clay balls in water, and rubbing again. When all was mixed, the doctor touched the white paint with his two forefingers, and, singing high and shrill all the while and keeping time with his painting, he made a double row of polka dots down each arm, then hit or miss over her back and down the front. He duplicated the performance with blue paint and then with yellow, until there was only a pleasing background of brown skin showing.

Still using the two paint fingers, he drew a black line straight across her face through the eyebrows. Her face above this he made a dead white. From the black line down to and including her upper lip he made a solid yellow; her face below this and about half her neck he painted black. No one could possibly have recognized my dear and respected neighbor. Her beautiful black hair was wet and dangling and had bits of herb sprinkled through it.

All this was hard work for the doctor. He weighed two hundred and twenty-five, and was stooping and singing constantly. The perspiration dripped from his face, and his plush shirt showed dark, wet areas.

It seemed to me there was not much more the old fellow could do in the way of decorating the Old Lady, but he knew something else. He moved his paint stone down to her feet; still chanting gustily, he squatted on his heels

and, dipping small feather brushes in the paints, he made a snake on each foot. The heads in white, with black mouth, nose, and eyes, were on each great toe nail; the white zigzag angles of the bodies ran halfway up the shin bone. Her skirt was folded back barely enough to allow for the painting.

When all was finished, no one could have called her naked; she was actually the most covered-up person I ever looked at. Comical! I wanted to both laugh and weep. My poor dignified Old Lady — and everyone so sober!

While all this was being done, an assistant had been covering a ten-year-old boy with black and white polka dots. It seemed he was being taught the ceremony.

The decorated ones were now seated in the middle of the picture, where the doctor waved feathers, shells, sticks, and all sorts of jimeracks over them, and finally tied a bunch of feathers like a toy duster to the Old Lady's topknot. She looked rakish as anything, with all that paint she was wearing. Then he took two little boards with gods painted on them, and, clapping her between them, he twisted her body to the right and then to the left, all the time making a sort of trilling noise that almost wrecked my gravity. He did that with every doodad he had in his pack, and then went over the lot again.

She sat with her legs straight out in front of her, and he placed boards at the soles of her feet and then gave each foot a little kick; with a trill he brought feather dusters down on her head; finally he put around her neck a necklace of dried and braided corn husk and bracelets of the same on her arms. After he had done everything anyone could possibly think of, he sent the two painted ones out. Then he put the handle of the feather-duster affair in his mouth, took a bunch of eagle feathers in one hand, and blew the whistle in the

handle of the duster as he dragged the feathers down a line of the painting. In this way he went down each cornstalk and around the border.

This being finished, a robe was spread down in the middle of the floor, and the two patients — victims would be a better word — were called back. A basket of corn meal, with a pattern in medicine drawn on top, was set before them. The doctor took a pinch about as big as an egg and shoved it into the Old Lady's mouth. Somehow she managed to down it in time for the next. After that, she and the boy helped themselves for a little, and that act was over.

They asked me to have some of the corn meal and I tasted it. No salt! How they ever swallowed it I don't see.

It requires a specialist and an artist to do what that M.D. did. No common doctor could have made the sand painting; his ease and confidence were wonderful. The sand used is from the different sand rocks of the Painted Desert formation we have around here. The black is charcoal. All the colors are ground fine on stone mills. The material he used to paint the Old Lady was the same, mixed with water to about the consistency of putty. The water used was dropped from a turtle shell.

In making the painting the sand is held in the closed fist and allowed to dribble in a thin stream between the thumb and forefinger. There may be some three or four colors in less than a half inch, but all the lines are true and not in the least blurred. I understand that every inch of color has its own proper place. The doctor had several assistants, but if anyone made the least mistake, he corrected it. Of course his only design is in his memory.

August 5

About five yesterday afternoon a messenger came bringing several things that did not add to my happiness.

One was a reminder that a note at the bank is overdue. 'Please give this your immediate attention.' We are borrowing money to pay on a farm we are buying — in a country where there is more water than there is in a well.

March 30

I never supposed I should be so calm in a smallpox epidemic. It has come upon us suddenly, and almost immediately dozens have died. The Indians come to the store with their bodies covered; they lie down on the floor beside the stove sick as can be, and we have such a time getting them to go home. It's raw and cold and wet outside, and our stove is red-hot inside. May you never know the odor of drying clothes, none-too-clean bodies, and the disease.

It's not the least use for us to be careful; the disease is everywhere. Of course, when a medicine man treats anyone, a crowd comes to the ceremony and the disease is spread more effectively. This morning I shook hands with a man who had pox sores all over his body, face, and hands, but I did not notice them until I felt the roughness of his hand. He said two of his children were dead and all the others in the hogan sick, and he had had to come for food. Of course there was nothing to do but take his money and pawn his beads, which must have had enough germs on them to kill the nation. Such things are of daily occurrence.

Vaccination has been explained to the Indians, and they go willingly to be vaccinated; but the roads are bad and the ponies poor and thin, so I offered to vaccinate here if the vaccine could be sent. I have had about twenty cases and expect more vaccine in a few days.

Among the first to die was our Old Lady — the finest woman and the best weaver in the whole countryside. I have never known a more perfect mother and housewife. She was a most

competent head of the family, a counselor and guide to every man, woman, and child. The order she kept among some ten or more children, her own and her grandchildren, was beautiful to see. Already the household shows the absence of her managing hand. None of the children has been washed or combed since the Old Lady's death. Her father came to me after she was buried and said, 'My daughter is gone. Her children will be hungry. She called you her child, so you must not forget her babies.'

Very touching. They really believe they have a claim on me because I always walked to her hogan when I walked out at all, and I called her 'mother.' Now I am expected to feed and clothe the whole family.

In the midst of the death and disaster came Clizy do clizy (Blue Goat), full of distress because his black stallion was in awful danger of dying. Someone or some destructive devil had cut a part of the hair from the black stallion's tail so that, instead of the full flowing ornament that almost touched the ground, the long black hairs hung in two spikes. This, somehow, was the worst kind of tragedy, and the whole family was in distress; even two of the children who have smallpox cried because the black stallion was bewitched and would surely die. . . .

I expect more vaccine to-morrow and have sent word to the Little Bidoni's family to come. They are a very intelligent and superior household, with several small children.

The name 'Little Bidoni' we gave him because his own name is hard to say and harder to write. Bidoni means son-in-law. His name is Somebody's Son-in-law. It's the 'Somebody' I can't say or spell.

March 31

Another day. Only two deaths reported. The condition is worst, we

hear, around the government post. Almost everyone everywhere has had the disease, however, and there is scarcely a smooth skin left on the Reservation.

April 1

Night again. It has been a hectic day. I've held the hands of four small poxy Injuns when they came to tell me of a death in their hogan and put out their hands for a sympathetic grip. When they shake hands, they hold for several minutes. What could I do but console them in their way? I'm covered with smallpox germs. One woman, who was covered with sores, laid her head on my shoulder and leaned against me. Her husband died last night. What use precautions?

The Little Bidoni came this afternoon with his two wives and five small children. The smallest, a boy about four years old, had never been to a store before, his father told us. The others, one girl and three boys, were all shy and sweet and so unusually well dressed. They all had on silver belts and beads. The little girl, who was about fourteen, must have had on six pounds of silver, including lovely blue turquoise ear loops of fine beads which announce she is of marriageable age.

My apparatus and technique for vaccination consist of soap and water to wash a clean spot on the arm, then the scraping of a small area, and the rubbing in of a small drop of vaccine.

In this instance Ken and the Little Bidoni stood leaning against the high counter in the store while I arranged my things on the counter. The Little Bidoni stood where he could see the members of his family being vaccinated, but he did not show a wrinkle of anxiety. The children and the two wives as I vaccinated them never for a moment took their eyes from the Little Bidoni's face; he gave them very quiet, straight looks, but seemed to be taken up with

the conversation which he and Ken carried on by unspoken agreement.

KEN. You have a large and handsome family, my friend.

LITTLE BIDONI. Oh yes. I am happy that you say so. My family is happy at the hogans.

KEN. Your girl is very beautiful. She is quiet and well behaved like her mother, who makes the fine blankets.

LITTLE BIDONI. Yes, you are right. My daughter is a good girl. She owns many sheep and is going to be wise like her mother.

KEN. My friend, your boys are all brave and strong.

LITTLE BIDONI. *La-a-a*, my brother. My sons, as you see, are all brave. Not one would flinch from any small pain.

Just here I was vaccinating the four-year-old boy. He was white as a brown-skin could be, but made no sound or movement.

KEN. You speak truly. Your sons are all brave and unafraid. Please allow my wife, who likes all brave boys, to fill a bag with candy for each of your children who is here to-day.

April 30

Back home again from what might be called a pilgrimage. Our nearest government doctor ran out of vaccine. We simply had to have some, so I started to the railroad for it.

How did I go? Don't ask me. I have a sinking feeling whenever I think of that seven days. A circuit of one hundred and seventy-five miles, with a Navajo team and the Navajo! Snow! Drifts! Mud! Slow travel!

I did not suppose anything in this world would justify to me whipping a horse, but that Navajo team was the most aggravating thing that ever existed. As I left here at 4 A.M. Ken said, 'Don't let him drive hard until afternoon. Take it easy until the horses get strung out.'

Don't let him drive hard! By whipping, yelling, and slashing we could get that team to trot — downhill — never otherwise. If for two minutes the driver stopped his belaboring, they stopped. He would stand up, lean over the dashboard, and lash with all his might, and the horses would walk slowly out of the road and come to a dead standstill; he'd pull on the line to turn them back and they'd twist their necks, open their mouths, and stand there. Several times he had to get out and slash them around the legs and shoo them back into the road as he would an old cow.

The wonder to me was that not once did that Indian appear to lose his temper; he did n't seem to think he was passing through anything unusual. For a while I was fairly sick with the whipping, and then I regretted I had n't brought a pitchfork.

At noon we stopped at a water hole, fed those beasts, and ate our own lunch. One horse would not eat corn, had never learned to like it. Many Indian ponies will not eat grain of any kind, even when they are starving. At first I thought the horse was worn out and too tired to eat, and I began to feel remorse for wanting that pitchfork; but when the Indian tried to catch the brute to hitch up — and the beast was hobbled, too — I got over my pity and remorse.

We got under way again with twenty miles, mostly upgrade, to go. I can't tell you about the first eleven miles. Sometimes I think I am still traveling that road and always shall be. It was endless. When nine miles from the post office, our destination the first day, we came into the Keams Cañon road. For five miles that led across a wide valley. Five miles of mud and melting snow! Hard footing for any team — but for that one! It's a wonder I have any disposition left. We crept and slid and staggered so slowly that when we stopped, as we often did, it would be

several seconds before I realized we were standing still. It was sundown. Still miles of mud ahead of us, and the horses done out. A cold night was coming and I began to wonder if I could make it the rest of the way on foot in the moonlight. Again I thought it would be better to wait until the mud began to freeze and we could travel better.

I had not decided when the mail from Keams, two men in a light rig, passed us. They stopped when they could look back into our top buggy and see the passengers were not all Indians. One of the men insisted that he and I change seats so I could get to the stopping place before night. I agreed, and waded in mud over my shoe tops to make the change. Away I went, rejoicing to have mud splattered on me by a real live team.

My Indian got in at ten o'clock, his passenger an hour earlier, because he got out and walked.

It snowed that night and we had a blizzard for the next two days. The road to the railroad was so bad that everyone advised me not to try it. Finally one of the men at the post office volunteered to go, and I let him. Hoping the road would be better, my Navajo and I came back by Nozlini and Chin Lee. It was a little farther, but there were two places to stop instead of one.

So ended my travels. I vowed I'd not go out again until I could go in an airship. Ken expects to go week after next with our own team. The roads will be better, if it does not storm.

May 19

When I opened the mail sack brought in by the freight teams of Sendol zhi, there was the usual roll of photogravure sheets which Mother sends us from the *New York Journal*. These bring the war nearer than anything else we have,

unless it is the food question, but the food in a beef-and-mutton-eating country never is so much of a problem as it is elsewhere, I imagine.

The brown sheet shows photographs of the crowds in Paris, the streets jammed, soldiers marching, flags everywhere.

The page is always immediately spread out on the counter, and as many Indians as can get near crowd around and look and ask questions. They point and marvel. I marvel, too, at the real intelligence with which they study the pictures. Not one of them has ever been farther from the Reservation than the railroad towns a hundred miles to the south and east, but of course they recognize the buildings. They count the stories and the windows and guess that a particular building would be as high as such and such a rock or bluff. They recognize cars and automobiles and identify soldiers by the uniforms, and they count all of them.

One day when they despaired of counting so many people as there were in the picture of massed crowds, one took a soda-pop bottle, borrowed my pencil, and drew circles all over the sheet. Then they counted the people in each circle and asked me to add the numbers. After that they estimated that there were four persons in each space not included in the circles and I added those numbers. It came to several thousand and they repeated the figure all day, trying to grasp the magnitude of it in people. They speculated on how many sheep and horses all the Navajos owned, and the number of people was greater than the number of animals. At last they decided the stars were the only thing as numerous, or maybe the grass.

The army planes in a picture were flying in a formation like a flock of wild geese. The Indians asked if they would come down at the water holes. They

could n't get away from the idea that things that flew had bird habits even if men did ride in them.

In a few days the brown sheets are worn to rags; every inch has been pawed over and discussed. Always questions follow: How many white people left? Pretty soon, maybe so, Navajos will be the only people left. When all the white men are dead, what will the white women do?

You should have heard one old medicine man rave because there was no more free tobacco in the bowl on our counter. We explained that the soldiers had to have the cigarettes. That did not convince the old fellow that he should not have any.

Another old Indian wants the barbed wire when the war is done. He will use it to fence his desert water hole. He looks at the pictures and says they don't seem to know how to make a good fence over there, so he will take enough to surround a bit of grass for pasture. They seem to have so much tangled up and going to waste over there!

A picture of a long line of ambulances and hospital interiors impressed all the Indians. One asked if their mothers knew when the soldiers were hurt, and who would and how could they bury the dead where there were no quiet out-of-sight places.

One studied the picture for a long time and said soberly, 'Much weeping. All the women will cry.'

June 4

News! The Navajo men must go to the Fort to register. Great excitement! Some most unwise and shortsighted trader has spread the tale that the registered Indians are to be compelled to go to war and will be put in the front and shot first to save the white men.

This morning a strange Indian came into the store and bought every rifle cartridge we had for the 30-30 carbines,

the most used gun with the Indians. Ken says I should not have sold him the cartridges, but the Indian could see we had them. Somehow I did not want him to know I was afraid to sell them to him, so I asked if the coyotes were getting his sheep and he said yes.

I am not going to worry. Ken says he thinks the old men can keep the young hot-heads quiet. He has invited them to meet here any time to talk things over among themselves. He thinks they had better be here where we can feed them than to get excited on an empty stomach and do something rash.

June 11

Another week gone, and all the men of fighting age are registered. Every day the talk goes on. The plan is this: When the first sign of an order comes for the Indians to leave the Reservation, the Indians around each store are to kill the trader and his family and burn the store. The pawn is to be saved and returned to the owners, and the supplies saved, if possible, for the Indians' use. They will all rise and act on the same day. When the stores are burned — and please note that they have figured they can use clubs at the stores and save their ammunition — they will all march on the railroad towns and fire and kill as long as they can. They know the white soldiers and guns are all across the sea, so the Indians think they can destroy many towns before anyone can stop them.

How like paradise our ranch would be now. No one can say we have n't earned it. If this war leaves us alive to get to it, I hope I never see, hear, or smell an Indian again. I must be tired. Likely I won't feel that way to-morrow.

June 29

A week ago Ken listened, by invitation, to the Indian powwow held here. About a hundred and twenty-five

Indians sat on the shady slope by the camp hogan, ate doughnuts and coffee, and smoked cigarettes; and then one, and another, and another talked. They kept it up all day. For the first time I realized where the Indians got their reputation of being serious and unsmiling. The sun went down, and the moon — what there was of it — came up, and still they talked. I was tired out and ready to drop. About midnight I went to bed and tried to sleep.

I think I had dozed off when the most bloodcurdling uproar brought me to my feet in the middle of the floor. Horses were clattering over the trail, quirts were slashing and saddles squeaking — note how thin the walls of this house are. At last I distinguished Ken's voice in the farewells, and I let my breath out.

Next the Navajos' riding song floated through the night. We had n't heard that for weeks, — not since the men went to the Fort to be registered, — and how beautiful, how perfectly uplifting it sounded.

I was almost in tears before Ken could tell me what had happened. After he had told me, I could not decide whether to weep for joy or for apprehension, so I did neither, but went to sleep and slept all night — or what was left of it.

It was just like Ken to think of the solution that would suit the would-be warriors, but might not please other white men.

As I said, first one and then another talked. The young men were for organizing a massacre and killing as many whites as they could before soldiers could be brought in. Some eighteen thousand fighting men had registered, and they had bought all the ammunition on the Reservation. Killing the whites on the Reservation would have been no job at all; they would scarcely be in good training by the time they

reached the towns. They knew all that only too well.

The older men could remember Kit Carson and his scouts, and they did not want trouble. The young fellows answered with the story that the Indians were to be sent across the sea and put in the first lines and killed first.

Toward midnight they asked Ken to talk, and with nothing but his own conviction to go on he made several serious promises.

At one time the Mexicans owned this land where the Navajos are now, and quarrels over land are within the memory of all and the experience of many.

Ken told his audience that if the Indians were called to fight it would be to protect their own hogans, their own families, and their own wide valleys from the Mexicans. He told them that if they were called for that purpose Washington would see that they were made soldiers and provided with all they needed. He told them that if they were called off the Reservation he would go with them and lead them.

It was what they wanted to believe, and they believed it. Since, they have been getting their herds in shape as any white man would if he expected to leave home; they have bought such things as heavy shoes, saying moccasins would not do for long marches. Old men and all want to start south to meet the Mexicans.

We were afraid a report of Ken's words would reach the Agency before our letter. If the Agent contradicted the report — we should n't be making any more speeches about war policy or anything else.

We got our letter off to the Agent by special messenger, but felt none too comfortable while we waited four days for the answer. When it came it was hearty approval of what Ken had done.

We admit to ourselves that what Ken did probably averted a massacre, but at best the situation now is a doubtful joke. Ken might have to make good on some of his promises.

July 9

Do you know, I believe I am the only woman in the Allied countries who is not knitting, and I don't so much as own a needle. And I don't know how to knit. The Red Cross centres you speak of — the nearest one is a hundred and fifty miles or thereabouts from me. I feel guilty. Perhaps it will count for something that I have handled so much of the wool before it becomes yarn.

November 6

Packing to move your earthly goods in one small camp wagon is something of a job. We nailed up a few boxes and sent them out by the freight teams yesterday. When we start we shall take only a camp outfit. We are to go over a pass that is three full hard days north of us.

Our successor is at the store and is in control, and we are so glad and relieved to be able to give our whole time to packing and getting away. Almost four years we've been here. In all my life I have never put in a more colorful period. I feel as if I were returning home after a long journey in a foreign land. I am glad I went and glad to be home again. The new life will be interesting too.

November 12

Armistice! The whole world happy, and we did not know it until twenty-four hours after. No need to fight Mexicans! Nothing to do but hurry to those green fields and grow food.

And I don't need to learn to knit.

Yours,

H.

FOR SLEEP

THERE is no way with sleep but to die each night —
Drop like a drowning swimmer in the flow
Of heavy waters crushing out the light,
Closing above a last thin watery glow.

Unfearing and unhoping, you must ride
The lonely current of a nameless stream
That bears you onward toward its ocean's tide
With weight of waters heavier than dream;

And down beyond the world at last you will sink
Deeper than time, and where all time is vain;
And in the abode of sleep, as beyond the brink
Of death, give up the body and the brain;

Knowing you cannot wake, nor any sound
Trouble your silence like a distant bell;
Knowing that nothingness will close you round,
And in its still embrace you will fare well.

BERNICE KENYON

THE ENERGY OF STARLIGHT

BY A. VIBERT DOUGLAS

I

THE development of science presents a dual aspect. When it is regarded, as it were, microscopically, the mind is staggered by the vision of ever-growing complexity, greater and greater diversity, whether it be of stars or stones, men or microbes, molecules or atoms — new types, new species, new affinities, new isotopes. Regarded macroscopically, however, very different is the prospect it affords — the vision of all-embracing natural law, a great underlying unity gradually disclosing itself, the intrinsic harmony of all things. This is the vision all-compelling, the vision which sends the man of science on a lifelong quest as sacred as that of the Holy Grail — the quest of Truth. And in the reality of this vision his faith is unwavering and undaunted. All faith is dynamic, and to this vital faith of men of science that there exists ultimate order in the universe Professor A. N. Whitehead has ascribed the rescue of Western thought in the later Middle Ages from the futility of 'unbridled rationalism.'

In no branch of science is this gradually emerging unity more evident than in the realm of physics. Five or six hundred years before the beginning of the Christian Era we find the Greek philosophers experimenting and speculating upon the phenomena of mechanics, sound, heat, light, electricity, and magnetism. Each of these was at first an entirely separate and distinct branch of knowledge, no connecting

links being apparent. Archimedes investigated the laws of mechanical advantage and buoyancy; Pythagoras studied sound, discovering a relation between the length of a stretched string and the note which it would produce when caused to vibrate; Hero of Alexandria probed some of the mysteries of heat; Thales, in 600 B.C., knew something of the manifestations of electrostatics and of magnetism, but to him they were phenomena unrelated in any way; Aristotle, about 350 B.C., and five hundred years later Ptolemy of Alexandria, recorded their observations on the behavior of light, but of its true nature and its kinship to the phenomena studied by Thales and Hero even Ptolemy knew nothing.

Our picture is thus of six streamlets of knowledge having their beginnings in the far-distant past, each growing in breadth and depth as the centuries rolled by. But not the inspired vision of even the greatest thinkers of early times could foresee that these streams would prove to be tributaries of one mighty river — the vast, deep, broad river of energy.

The first confluence took place almost imperceptibly with the gradual realization that sound was essentially a mechanical phenomenon, produced by mechanical means and in itself a pulsation of material particles. Thus two of the streamlets had merged their waters before the time of Galileo and Newton. The momentous contributions to knowledge made by these two giants among the great thinkers of all time

swelled this stream during the seventeenth century until it became a rushing torrent.

The other streamlets, meanwhile, grew each to the proportions of a river, but each maintained its individuality until the nineteenth century. With the discoveries of Coulomb, Volta, Gauss, Oersted, Ampère, Ohm, and the great Faraday, the rivers of knowledge regarding the phenomena of electricity and magnetism became merged into one, the river of electromagnetic energy. Contemporaneous with Faraday, Carnot and Joule were establishing the relation between mechanical energy and heat, and so another mingling of waters was accomplished and the comprehensive river of mechanical energy flowed on toward the present century, to be augmented from within by the work of Helmholtz, Clausius, Kelvin, Boltzmann, Gibbs, and Planck.

But what of the river of light? 'Light, the prime work of God,' as Milton has written; light, to this day the chief marvel and mystery to the natural philosopher. The stream of light grew into a river during the lifetime of Newton and Huygens. Its volume increased with the investigations of Fraunhofer, Fresnel, Foucault, and Kirchhoff, but it was the mathematical researches of James Clerk Maxwell about 1875 that brought about the union of the river of light with the great river of electromagnetic energy. The Maxwellian electromagnetic theory of light at once led men of science to search for a radiation akin to light but invisible and of very great wave length. The infectious enthusiasm and pioneer researches of Sir Oliver Lodge stimulated many to the search, but to Hertz in 1888 fell the lot of first detecting the 'wireless' waves. Gradually it was realized that to the same category of electromagnetic waves or vibrations belonged the heat

rays, much shorter in wave length than the Hertzian waves, but longer than those of visible light. Thus, too, the mysterious X-rays of Röntgen found their true place among the electromagnetic waves shorter than light, shorter even than the invisible ultraviolet light whose chemical activity is so great.

Thus the great river of mechanical energy mingles its waters with those of the great river of electromagnetic energy, and even as the waters swirl together new knowledge regarding the energy of matter itself springs suddenly forth in astounding abundance to increase the already swollen river. The momentous discovery by Sir J. J. Thomson of the electron, the ultimate charge of negative electricity and the smallest known particle of matter, closed the century. Following up the work of Becquerel and the Curies in radioactivity, the present century saw the birth of Rutherford's nuclear theory of the atom and his discovery that the electron and the proton, or ultimate positive charge of electricity, are the two building bricks of all the elements of which matter is composed. On Rutherford's experiments arose Bohr's theory of the atom, which supplied for the first time a picture of the mechanism within the atom which permits of the emission of electromagnetic energy as X-rays, light, or some other form. The culminating step in this conception that there is one great entity, energy, which can manifest itself in many forms, was taken by Lorentz and by Einstein independently when they propounded the relation which links matter with energy. Matter itself, or, to think of its ultimate constituents, the proton and the electron — these are tremendous concentrations of the fundamental entity of the universe, energy. Not that this is available energy — the secret of the

concentration of energy whereby matter is created and the secret of the annihilation of matter whereby its energy is dissipated into space are held tightly by Nature beyond the grasp of man. Sometime and somewhere in the space-time universe this transformation has taken place and matter has come into existence. Man can alter its form to a limited extent by bringing about chemical and physical change, but he cannot as yet make or unmake matter.

II

After contemplating this mysterious fundamental entity, energy, manifesting itself in so many ways, whether bound as in matter or freely transformable as from light to heat, from heat to mechanical energy, to electrical or chemical or any other of the well-recognized forms, the question naturally presents itself, Whence comes all this terrestrial energy with which we are familiar? The earth beneath our feet, the air we breathe, and our bodies themselves are tremendous concentrations of energy. Whence comes it? And the answer is — star dust. Our earth was once a portion of the surface material of the sun, and our sun is just a star among the stars of a great galaxy of many millions, a quite typical star in most respects, neither one of the largest nor one of the smallest, neither one of the hottest nor yet the coolest. A chance fragment of a great star is our planet; and man, as far as his physical framework is concerned, being 'of the earth, earthy,' is therefore of the stars, starry, or, re-writing a famous line of the great poet, 'We are such stuff as stars are made on.'

When we seek the source of the unbound energy of the earth we find that some of it — its gravitational energy and a very small amount of its heat — is within it; but the energy which

maintains the surface temperature of the earth at a reasonable degree of warmth, the energy which makes possible the existence of life upon the earth, life vegetable, life animal, the life of man — all this energy comes from without. It is brought to the earth in the sunlight and in the starlight; but, since the latter term in its fullest sense includes the former, we may simply and with absolute accuracy say, Of star dust are we made, and by starlight we live.¹

If astronomy be the study of the stars, astrophysics may be said to be the study of starlight. Whereas the former is the oldest of the sciences, the latter is one of the youngest, yet in the few-score years that have elapsed since the birth of astrophysics man's knowledge of the universe has expanded many fold, so almost overwhelming have been the revelations resulting from the study of the energy of starlight.

One never ceases to marvel at the achievements of the early astronomers. They mapped the heavens; they recognized that the stars are the time-keepers; that their positions give us our sense of direction; that the seven celestial bodies — the sun, moon, and five naked-eye planets — which wander across the background of the 'fixed' stars move with an ordered precision which they could foresee though they could not explain. But, because they knew not the real significance of energy, they could read in the starlight only its most obvious message.

Aristotle gave his support to the doctrine that all things terrestrial were made up of four constituents, — earth, air, fire, and water, — whereas the celestial bodies were composed of a fifth substance, the perfect immutable

¹The writer acknowledges indebtedness to Dr. A. Wilmer Duff for the idea of the river of energy developed above and to Dr. E. B. Frost for the metaphor 'star dust' as here employed.

substance; and hence, unlike the earth, the heavenly bodies remained forever unchanged. No room is here for a study of the energy of starlight, for to recognize an outflow of energy presupposes change in the radiating body. Thus the minds of men had to be freed from the shackles of this Aristotelian fallacy before the science of astrophysics could come into being. This liberation was not achieved for seventeen centuries, and then it was Galileo who severed the chains once and for all by turning his pioneer telescope upon the sun and finding there every evidence of change — change in its surface brightness, dark areas whose shapes and positions altered from day to day. By this and other evidence he proved the universality of the law of change.

There remained now no obstacle to the study of starlight as energy save only the very essential fact that the means of analyzing light was still unknown. The discovery of the prismatic separation of light into its constituent rays was one of the many achievements of Sir Isaac Newton. If a ray of starlight be made to traverse a glass prism, it emerges not as one ray but as many; the composite starlight is analyzed, and each ray corresponding to a different energy value is set out in order, so that it can be studied apart from the others; and, what is quite as important, if the incoming starlight is lacking in some of the full range of expected energy values, their absence becomes at once apparent.

The road was now paved for the birth of astrophysics, and the investigations of Fraunhofer and Kirchhoff into the spectra of starlight mark the beginning of this new branch of science.

III

When the light of a star is viewed through a spectroscope attached to a telescope, a band of colored light is

seen, the sequence of rainbow colors, but crossed at intervals by dark lines. Instead of merely looking at this spectrum, a photograph of it may be taken, and thus a permanent record is obtained which may be studied under the microscope. In this way precise measurements may be made of the wave lengths of those missing radiations in the stellar spectra. Now these dark lines in the spectrum are the hieroglyphics which hold the message of starlight, and the corresponding measurements of wave lengths are the code by means of which these hieroglyphics may be interpreted.

It is well known to the physicist that the atoms of every element can be identified by the distinctive radiations which they can emit or absorb according to the conditions of temperature and pressure under which the experiments are carried out. When the distinctive wave lengths of, let us say, the hydrogen atoms are found to agree precisely with a set of the dark lines in a stellar spectrum, the conclusion is obvious and unavoidable — hydrogen is not exclusively a terrestrial element, it is a constituent of every star, it is one of the essential building bricks of the material universe. So too carbon, nitrogen, calcium, iron, silicon, and, indeed, most of the elements of terrestrial occurrence, have added their hieroglyphics to the stellar spectra. Not only do the elements impress upon the starlight the record of their identity, but also of the conditions of temperature and pressure under which they are radiating or absorbing energy. The temperatures of stellar atmospheres are found to vary from about two thousand degrees Centigrade for the cool reddish stars to over twenty thousand degrees for the hot giant stars of bluish hue. This is read directly in the message of the starlight, but to form a picture of the conditions

at the *centre* of a star is another matter. All the courage and all the insight of the mathematician are here required to reason from known surface conditions to the unknown central conditions. 'Our object in diving into the interior,' writes Professor Eddington, 'is not merely to admire a fantastic world with conditions transcending ordinary experience; it is to get at the inner mechanism which makes stars behave as they do.'

The starlight contains some valuable information regarding the motion of the star. Just as the whistle of an approaching locomotive is shrill, suddenly becoming deeper as the engine speeds away, so the hieroglyphics are displaced slightly toward the violet end of the spectrum if the star is approaching and toward the red or longer wave lengths if the star is receding. Much of what is known regarding the motions of the stars in space is learned in this way. These motions are sometimes very large, a velocity of one hundred kilometres per second being not uncommon, yet so vast are the distances between stars that 'speeding' is not a public danger! Even a 'runaway star' traveling one thousand kilometres per second would speed on through empty space for many millions of years before approaching so closely to any other star as to cause apprehension or consternation in the star world. The stars are no more crowded together than would be four or five little minnows were they the sole inhabitants of the Atlantic Ocean.

IV

Whence comes the energy of starlight? This has been one of the puzzling questions to which one answer after another has been given, only to be rejected as insufficient. Kelvin suggested a gradual contraction of the star; then radioactivity seemed to offer

a solution; more recently the slow synthesis of the elements was regarded as the source of energy — hydrogen atoms in the stellar crucibles being so locked together in mutual embrace as to be transmuted into the successively more complex elements of increasing atomic weight, a process accompanied by a liberation of electromagnetic energy. But now a new and yet more startling theory holds the field, championed by some, doubted by some, unproven but not disproven — the theory of the spontaneous annihilation of matter within a star. Reference has already been made to the Lorentz-Einstein hypothesis of the intrinsic oneness of matter and energy. It is not inconceivable, then, that under the extraordinary conditions existing deep down within a star the ultimate particles of matter, proton and electron, might so collide that each unkinked the other's energy, thus producing their mutual annihilation as matter, or, expressed otherwise, thus bringing about the physical degradation of the energy of matter to the energy of radiation.

Perhaps this is the true explanation of the seemingly inexhaustible store of energy poured out continuously into space from every star that shines in the heavens. To consider just one typical star, our own sun is radiating energy equivalent to the annihilation of four million tons of its mass every second, and has been radiating thus for a million million years if we are justified in assuming that it was once as massive a star as Sirius. But, vast as is the store of stellar energy, it is not limitless. Professor Whitehead paints a majestic but a solemn picture of the universe 'passing with a slowness, inconceivable in our measures of time, to new creative conditions, amid which the physical world, as we at present know it, will be represented by a ripple barely to be distinguished from non-entity.'

'Degradation of energy, yet conservation,' is the summing up of the whole matter by the physicist; 'physically wasting, yet spiritually ascending,' is the dictum of the philosopher.

That the processes of nature are irrevocably proceeding toward a lowest ebb is a thought intolerable to some types of mind. In spite of the fact that there is no supporting evidence, there are those who would believe that somehow and somewhere radiant energy — the energy of starlight — is being re-formed into protons and electrons, these aggregating into atoms, the atoms forming nebulae which condense into stars whose matter gradually becomes transformed again into radiant energy. Thus the whole order of nature becomes one vast cycle indefinitely repeated.

V

It would be difficult to overestimate the influence which astronomy has had upon the human mind. From the geocentric standpoint of pre-Copernican days to the heliocentric point of view was a tremendous advance and involved a revolution of thought of far-reaching consequences. But the study of starlight has not left us there; it has forced upon mankind the realization that, though the sun is the centre of the solar system, it is not the centre of the universe. Our glorious sun is but one of the lesser stars in a galaxy of a thousand million; and far out in space beyond our galaxy are the spiral nebulae to the certain number of many million, and the probable number of a thousand billion² — and each spiral nebula is a galaxy of myriad stars!

Where is man in such a picture? Certainly not where Gray infers him to be when he sings of gems and blossoms unseen by mortal eye: —

² This is the English billion, equivalent to a million million. — AUTHOR

Full many a flower is born to blush unseen,
And waste its sweetness on the desert air.

Nature has strewn her stars with even greater prodigality, but can we say they 'waste' their energy of radiant light and heat upon surrounding space because it may be devoid of little 'earths,' the habitats of human life? Is it 'waste'? That word is unknown in the economics of nature. The stars in their courses fight against our petty, anthropocentric sentimentalisms; they fight and they prevail. We must change our philosophy; we must widen our vision and sing with another poet, Robert Service, —

A star or a soul is a part of the Whole
And weft in the wondrous Plan.

All down the ages we find men of science and poets alike drawing inspiration from the starlight. Ptolemy of Alexandria, in terms characteristic of his period, expressed it thus: 'Mortal though I be, yea, ephemeral, if but a moment I scan the multitudinous circling of the stars, no longer on earth I stand, but sit with Zeus himself and take my fill of the ambrosial food of gods.'

Human thought has passed through many phases since Ptolemy's day. Materialism is inadequate and unsatisfying. When man endeavors to grasp the significance of the workings of nature, tries to realize the vastness of the universe and to grapple with the great mysteries still unsolved, perhaps it is a something within him akin to mysticism which sets some chord vibrating in harmony with those thoughts expressed by Pope in his pæan of praise to an Immanent Divinity, who

Warmes in the sun, refreshes in the breeze,
Glows in the stars and blossoms in the trees;
Lives through all life, extends through all extent;
Spreads undivided, operates unspent. . . .
To Him no high, no low, no great, no small;
He fills, He bounds, connects, and equals all.

THE PATH OF WISDOM

BY VINCENT C. BONNLANDER

THE world is a fertile mother, refusing none who woo her. She yields impartially to him who comes in search of wisdom and him who is content with folly, responding to each with an offspring made in his own image. He who says in his heart, 'There is no God,' finds nothing in Nature to contradict him; and yet another, looking upon the same world, will hear the winged creatures, the mountains, and the abyss of ocean declaring, as Saint Augustine heard them, 'God made us.' Society may banish the thief, incarcerate the vicious, draw its skirts away from the heretic, but Nature will never disown any of these: she has room for them all as well as for those who observe the proprieties of custom. In the house of Nature there are also many mansions. In her great democracy of time and space every created thing has its own appointed place. Nature is impartial, and we shall look in vain if we expect from her any verdict upon the kind of life men choose to lead in her domain.

And yet, the contradictory conclusions to which men come concerning life present a problem. To say that it is not Nature's problem does not dispose of it. Rather it is to insist that it is man's problem. And that insistence is needed. Frequently men defend a departure from custom by maintaining that their indulgence of desire is natural, thereby implying that Nature gives approval. But that is what Nature never does: Nature is indifferent, making no distinction between sin and

righteousness. A flowering vine and a rotting carcass at its roots alike illustrate the laws of chemistry and gravitation; and by invoking such principles there is nothing to choose between the hand that offers a cup of water to the thirsting and the hand that flays a shrieking victim. The discrimination which we make between these is not derived from any bias in Nature, but derives from a human bias. And it is to the latter we must turn if we will understand the meaning of morality, and that species of morality, right thinking, which is called wisdom.

On being confronted with the diametrically opposed opinions of men concerning life, a first impulse is to dispose of the confusion by concluding that here we are face to face with an ultimate fact beyond which we cannot progress, to admit that, as concerning tastes, so with the prejudices of the reason there is no disputing. And the temptation is almost overwhelming to be driven to adopt some theory of predestination which, while not accounting for that bias in intelligible terms, at least will lighten the burden of our ignorance and relieve our sense of responsibility. It is the old temptation to invent a vocabulary, pretending we have thereby made a discovery about things, to banish the familiar into regions of the unknown under the guise of offering a solution of its problems and difficulties. But to adopt such a course is a confession of defeat. For to displace any problem from the present and carry it back to creation is to remove it from time

altogether and from the world which gave it birth. It is not explanation, but the failure of explanation.

But the recognition of human bias need not lead us to such a confession of defeat: it may and does furnish us with a clue to more hopeful considerations. It leads us to inquire why it is that men living in the same world should come to such radically different conceptions of it. And when we ask, What is the pivot upon which this personal bias turns? and expect a verifiable answer, the whole problem appears in a different light.

For one thing, it invites us to a consideration of the facts of psychology — not, however, that phase of it which deals with neurones and sense organs and which is chiefly concerned with physiology and anatomy, but rather that development of the science which still goes by the name of the New Psychology, dealing with the mechanisms of thought under such terms as complexes, repressions, conflicts, rationalizations, and the like. This latter approach is concerned with the thought process itself, and its examination of the working of the mind reveals the impressive fact that fidelity to the laws of logic is not a decisive factor in generating the wide variety of the opinions, theories, and beliefs embraced by men. As Dr. Bernard Hart has pointed out in following this phase of inquiry, there are none more logical than the insane. 'The Queen of Sheba' who scrubs the floor of her ward has a strictly logical explanation of her drab and sorry condition: it is all the result of a gigantic conspiracy against her, and there is no slightest detail in the conduct of friends, relatives, and associates which she does not fit perfectly into the 'truth' of her contention. Who then shall decide between her and those who call her 'truth' an error and a delusion? Shall we make it a matter of a majority

vote, admitting that the day may come when the population of our insane asylums and those outside will change places? That has been suggested. A Persian it was, I believe, who in visiting this country some years ago made the delightful observation that we keep some of our citizens confined to give the impression that the rest of us are sane. But a collective prejudice is simply an individual bias magnified. The upshot of this line of inquiry is that in spite of a perfect logic there are people who find it of no use in helping them to get about in an ambiguous world.

But if the test of reasoning is not found in the quality of logic, where then shall we turn for an understanding of prejudice? And the answer for which we have been seeking is readily found: the test of rationality does not lie in the laws of logic, but is discovered in the application of reason to facts. It is in this direction in which the path of wisdom is discovered. And if the word 'facts' seems to be a question-begging term, it may be avoided by stating the principle thus: thinking and reasoning do not occur in isolation from the things thought about and reasoned about, and what is really critical is what thinking accomplishes with the objects of thought.

It is an honored doctrine that achievement is dependent upon the selection of a goal, and then abandoning all other loves to cleave only to this. But the facts of life, exemplified equally in success and in failure, teach quite otherwise. These insist that achievement is not primarily a matter of desire and persistence, though these do play a significant if not a decisive rôle. What is no less important than the selection of a goal is knowing something quite definite about the nature of that goal, and what is no less important than devotion and persistence in attaining it

is knowing something quite definite about the means by which it can be attained. All the desire of the baby for the moon will never bring it to his arms, nor will the most painstaking search of the prospector reveal the hidden gold unless he seeks in places where it may be found. To say that Nature is indifferent to the desires of man does not mean that man can be indifferent to Nature. It matters exceedingly to him if not to her what he chooses to do with facts. Wisdom is born when man discovers that the reason finds no tracks laid down for it in the world in which it operates, but that the mind of sage and fool, learned and simple alike, bumps along until it encounters a fact, and what is really critical is what the mind chooses to do with that fact. And the emphasis is on the *do*: thinking is also a doing, an accomplishing.

Man can do a number of things with facts. He may ignore them, and then they will send him sprawling, cripple him, or destroy him. He may hate them and vent his anger by beating his head or his heart against them, only to find himself torn and bleeding. He may turn facts into questions, and then they will forever haunt him. He may behold in them a secret to be explored or a mystery to be worshiped; and in one case they will bring him to a seat in a laboratory, in the other they will bring him to his knees. Having made his choice as to what to do with facts, they will certainly do something to him. Action and reaction is another law of Nature from which there is no escape. His decision may eventually bring him to the madhouse or to fame, to the bliss of Heaven or the torments of Hell. Choose he may and does and must; but he chooses at the peril of his life and soul.

And so we are prepared to give a more adequate answer to our question:

What is there in the way in which people reason that leads them to such contrary conclusions about the world and the kind of life it is their lot to live therein? It is at the source a difference in the way they face and dispose of facts, whether their thinking follows the lead of things, or whether, on the contrary, they insist that things should follow the lead of their thinking; to state it paradoxically, whether they build up their prejudices before facing facts, or whether they arrive at their prejudices after examining them. Between these two attitudes lies the abyss which separates the path of wisdom from that of folly.

The mind of man climbs to a new level when it discovers that facts are not enemies, but the familiar furniture of a world which it may call its home. Then it no longer dreads them, but accepts them with a sincere humility akin to piety, purging itself of all anxiety and renouncing the alchemy of fancy which makes them seem other than they are. Matthew Arnold quotes somewhere from Bishop Butler: 'Since things are what they are, and their consequences will be what they will be, why then should men wish to be deceived?' Why indeed? To face the spectre of deception resolutely is to banish it utterly. Building its foundation upon facts, the soul may go forward unafraid, strong in the confidence that knowledge of facts gives it a power over them, strong in the confidence that, knowing things for what they are, it may employ them to build a better and a more beautiful world.

Thus the wise man finds in his wisdom a reward for the kind of life he has led, a kind of life whose energies have been directed toward understanding the world in which he lives in order that he may live well therein. Not that he need or can postpone either of these

interests in favor of the other. They are not mutually exclusive. His thinking well is part of his living well. By seeking humbly into the ways of things he discovers wisdom, and through knowing the ways of things he becomes a creator. In this he finds an ample field for the joyous exercise of his soul. To be spiritual is also to be wise.

And with the discovery of the path of wisdom his whole attitude toward Nature is reborn. No longer does he look upon Nature as a fickle mistress, bringing forth a protean brood to every chance lover. That she may be so entreated he will admit. That she is impartial in her fertile motherhood he will not deny. But with wisdom comes

the revelation that, while she may be indifferent to man, man may not be indifferent to her; that her favor may be sought and won, or dallied with and lost. And he who walks the path of wisdom will be swept by a longing to win her from all idle lovers, to hold her to his heart and breathe his own love into her. Humbly and patiently he will sit at her feet, striving to understand her ways and seeking to learn the secret concealed behind her impassive face. And as he gazes there will come one time the fleeting beauty of a smile. Perhaps it was the mirroring of his love; perhaps the quickening of her own soul. The path of wisdom is a discovery which leads on to others.

HANNIBAL AND ROME

BY CAPTAIN B. H. LIDDELL HART

I

IT is the year 238 B.C. Before the altar of Baal-Moloch in the city of Carthage stands the great general Hamilcar Barca, offering sacrifice for the success of the expedition he is about to lead into Spain by way of the Strait of Gibraltar. Few who watch him have any insight into the ultimate motive, stupendous in idea and in consequence, which is driving him into this self-imposed exile. Perhaps its significance is revealed, by instinct, most to the nine-year-old boy who stands near him, a boy whose features tell the relationship of the two by a similarity rare even between father and son. For Hannibal — the 'Grace of Baal' —

had been born in the later years of the First Punic War, when Hamilcar was about to begin that heroic guerrilla struggle in which, during six years, he strove to preserve Sicily from the Romans, only to be thwarted by lack of support from war-weary Carthage. Hannibal's early childhood had been filled with the impressions of mingled pride and shame — with the epic glory of his father's fight against odds which alone brightened with honor the gloom of material losses, with the peculiar bitterness which springs from undeserved defeat, and with the sense that military genius had disclosed a potential counterpoise to the traditional sea supremacy which Carthage had forfeited.

At the end of the ceremony, Hamilcar called his young son forward and, out of earshot of the other worshippers, asked him whether he would like to accompany the expedition to Spain. At Hannibal's eager assent, his father led him up to the altar and, making him lay his hand upon the sacrifice, bade him swear an oath of lifelong enmity to Rome. Then, their blood tie reënforced by a blood oath of still deeper significance, the two prepared to set out from a mother city which the father was never to see again, the son only after thirty-six years. And the blood of that sacrifice was to be the symbol of the blood of hundreds of thousands which was to be poured out in the vain fulfillment of the oath. To understand it, the Old Testament is a better guide than the classics, for these men were of a Semitic race, strange blend of the spiritual and material, and the binding force of a Semitic oath is portrayed in many passages, of terrible sublimity, in the Old Testament. Racial, too, was the tenacity of purpose, the patient impersonal pursuit of vengeance, carried to a pitch and prolonged to a span without match in the history of man.

II

Twenty years have passed. The scene has changed to the ramparts of Italy, those towering Alpine battlements which, seen from Turin, seem to fall sheer to the rich plain of the Po, which they protect. On a wide bare platform between two peaks, a stage raised by Nature, — probably the Col du Clapier, — are assembled a horde as awe-inspiring as their setting. Faces wolfish from hunger and pinched from cold, ragged dress, and variety of equipment may give them a tattered-malion air, accentuated by their heterogeneous mixture of races — Spanish

and African foot, Numidian cavalry on their desert-bred horses, Balearic slingers, and a sprinkling of fair-skinned Gauls; but their very assortment appears to symbolize the threatened racial encirclement of Rome, and the presence of such an army in such a situation, poised like a Damocles' sword above the plains of Italy, adds to their terrifying appearance.

With dramatic instinct Hannibal summons his men together and points to the view unfurled beneath them — in that clear atmosphere, as mountain climbers know, it would seem but a few steps down. 'A battle, perhaps two,' and Rome, the goal, would be in their grasp. The scene signifies not only the imagination which, coupled with vengeance, was the great driving force of Hannibal, but also his use of it as a moral tonic to his men, one of the secrets of his extraordinary power in welding this cosmopolitan collection of mercenaries into a matchless tool for his genius. For him the view symbolized Rome beneath him, for them it symbolized a limitless vista of booty; but his own imagination could also evoke a response from theirs to the grandeur of sharing in such a venture and playing for such colossal stakes. What a gamble it was! Those who saw the view were little more than half the number who, crossing first the Pyrenees and then the Rhone, had begun that arduous climb up the western slopes of the Alps. Difficult as was the passage of the precipitous and roadless gorges for an army, — with all its horses, pack animals, and elephants, — the obstacles of nature were less than the obstacles of men. For as the snake-like column dragged its endless tail round mountain spurs and along the face of precipices it was repeatedly assailed by the mountain tribes. And the descent, if unopposed, had to overcome the treachery of snow and ice —

in one place Hannibal had to halt his half-frozen and half-starved men and beasts for three days while a road was made for the elephants. What power of leadership must have radiated from this young man of twenty-nine to carry his heterogeneous army of mercenaries so far from their homes, to make them dare such perils when their blood was chilled and their minds oppressed by the unknown — and this in physical conditions so strange to men accustomed to the genial southern warmth of Africa and Spain. When they at last stood on the plains of Italy, they mustered only 20,000 foot and 6000 horse — a mere handful to invade a state which, fighting on its own ground, had a quarter of a million men listed for service among its citizens and allies, and thrice that number capable of bearing arms.

Yet, if the physical odds were so heavily with Rome, Hannibal had a counterpoise which has been too often underrated by historians. For he pitched his military genius against commanders who knew only the drill and not the art of war, — scorning it as Punic deceit, — and he brought a superbly trained professional army against short-service citizen levies. That he ultimately failed in a trial of quality against quantity, where Alexander had succeeded, was because he had to meet Romans, not Persians, men who stiffened instead of dissolving under pressure, and because he gave them time to learn the art of war and so balance the deficit of quality.

Thus Rome, despite her numerical strength, had ample cause for dread at the news that her foes had surmounted her northern ramparts. Baal-Moloch stood on the mountains, casting his fell shadow over the sunny plains of Italy, for although the head was the 'Grace of Baal,' the body symbolized

the terror of Moloch and its burning embrace, lusting to make sacrifice by fire and sword.

III

Two years later. It is the evening of Cannæ. The victim lies prone beneath the sword, stretched helpless, to all appearance, on the altar, awaiting the consummation of the sacrifice. Yet the blade does not fall. Why? That is still the enigma of history.

Since Hannibal entered Italy, he has defeated the Roman armies in three great battles. First at the Trebia, when he not only drew the enemy to battle breakfastless on a bitter winter day, but hid a picked body of troops in the sunken bed of a stream, to emerge and strike the Romans in the rear when they were spent from hunger and the strain of resisting the direct attack, and the more vulnerable because of the rout of their cavalry. Then at the Lake of Trasimene in the spring of 217 B.C.; here, after slipping past the army of Flaminius, which blocked the road to Rome, he prepared for his pursuers an ambush which, in art and scope, has no match in history. Concealing his troops overnight on the hills which bordered the lake, he waited until the Roman army, in hot pursuit, was pressing along the lake shore in the early morning, and then, at a signal, his troops, sweeping down from the mist-wraithed slopes, blocked both ends of the defile as a prelude to a battle that, morally and mentally won before it began, became a massacre as of sheep. The road to Rome lay open to Hannibal, with barely a hundred miles to go, and with no formed army at hand to oppose him. But instead of marching south he turned east toward the Adriatic shore, ravaging the country, giving his men their fill of booty, and putting to the sword all inhabitants

capable of bearing arms. Some discount this story because it comes, like all we know of Hannibal, from racial enemies; yet they relate many instances of his chivalry, and the very fact that they contrast this action with that of Pyrrhus, the last overseas invader, suggests its authenticity. If true, it not only shows us Hannibal slaking his thirst for vengeance, — he was still youthful enough to find satisfaction in such physical retribution, — but perhaps yields a clue to a deeper problem, his turning aside from the goal. The military reason often advanced is that his army, essentially equipped for mobile warfare, — like an athlete stripped for a race, — had no siege train. It may be true, for, although there is no direct proof, the repulse of his attempt to take Spolegium in passing is perhaps indirect evidence.

But beyond this there would seem to be a political reason. Since crossing the Alps he had conducted a ceaseless and subtle propaganda, its keynote that 'he was not come to fight against Italians, but on behalf of Italians against Rome.' Consistently he had released without ransom all prisoners who were not Romans, seeking thus to detach from Rome her allies. With his first military successes many of the Gallic tribes north of the Po had come over to his banner, but he had still to gain the alliance of the Italian states. It is well to emphasize that, if his route from Trasimenus took him away from Rome, it took him toward his allies. His army was a mercenary coalition, and he now aimed to expand and secure it through the achievement of a political coalition — his policy that of the racial encirclement of Rome.

But, as beyond the military reason we found a political reason, so beyond the political was there perchance a

spiritual reason? Let us stay our hand for a moment, for it is still premature for an attempt to draw aside the veil. Granted a respite after Trasimenus, the Romans, now awake to the imminence of the menace, — the fiery breath of Moloch scorching their very faces, — appointed a dictator, Fabius, who adopted a strategy henceforth to be linked with his name for all time, a strategy of wearing down the enemy's strength by avoiding battle. Time was on his side. Dogging Hannibal's footsteps persistently, keeping to the hills where Hannibal could not bring his cavalry superiority into play, cutting off stragglers and foraging parties, he remained an elusive shadow on the horizon, dimming the brightness of Hannibal's triumphal progress. Thus Fabius, by his very presence and immunity from defeat, thwarted Hannibal's moral suasion over the minds of the Italian allies. To check them from joining Hannibal was a far greater result than that, more commonly acclaimed by historians, of giving Rome breathing space — for Hannibal himself allowed this to Rome.

Attrition strategy, however, is not only a blunt but a two-edged weapon, and is apt to injure those who wield it through the moral depression and strain which it involves. When after six months the tenure of Fabius expired, Rome was almost compelled by the devastation of the lands of her allies to relieve the strain by a reversion to direct action. If the instinct was right, the execution was faulty, and the new consuls allowed themselves to be drawn to battle on the cavalry arena afforded by the coastal plain of the Adriatic.

Here, on the field of Cannæ, the greatest host Rome had ever brought into action — eight legions instead of the two of the usual consular army — was annihilated by Hannibal's

art, particularly the skill with which he played his cavalry 'trump.' As usual, the infantry were in the centre, the cavalry on the flanks, but the actual disposition was unconventional. For Hannibal pushed forward the Gauls and Spaniards who formed the centre of the infantry line, while holding back his African foot, posted at each end of the line. Thus the Gauls and Spaniards formed a natural magnet for the Roman infantry and were, as intended, forced back and back, so that what had been a line bulging outward became a line bulging inward. Flushed with their success and eager to break right through the enemy centre, the Roman legionaries crowded into the bulge and the press grew ever denser, until they could scarcely use their weapons. Thinking that they were pushing in the Carthaginian front, they were actually pushing themselves into a Carthaginian sack. For at this juncture Hannibal's African veterans wheeled inward from either side and automatically took the thick press of the Romans in flank. Meanwhile, the powerful assault of Hannibal's heavy cavalry on the left had broken the opposing cavalry on that wing and, sweeping round the Roman rear, had dispersed the cavalry on the other wing, which had been held in play by the elusive Numidian horse. Leaving the pursuit to the Numidians, the heavy cavalry had then delivered the coup de grâce by bursting like a thundercloud on the rear of the Roman foot, already surrounded on three sides and too tightly jammed to offer effective resistance. Thenceforward it was but massacre.

That evening, Maharbal, commander of the Numidian cavalry, urged an instant advance on Rome. According to Livy he declared, 'Send me on with the cavalry, follow on yourself, and in five days you shall feast

in triumph in the Capitol.' Hannibal replied that he must take time for reflection, whereupon Maharbal bitterly exclaimed, 'You know how to win a victory, Hannibal, but not how to use one.'

If the truth of the remark be uncertain, the truth of the opportunity is sure. When the rumors of disaster reached Rome, there was panic among the people, if not among the Senate — but for their prompt and resolute action masses of the inhabitants would have fled the city while there was time. For the dread advance guard of Hannibal was expected hourly.

Why in this hour of supreme triumph did he abstain from attempting the consummation? His next efforts are directed to breaking up the Italian confederation, and the reward of his victory at Cannæ comes in the first secessions of these states. His political object is clearly to continue building up a coalition against Rome. But why do this when Rome is stripped of her defenders, and her allies, if they have not deserted her, are temporarily paralyzed? An advance on Rome is not only the direct way to gain Rome, but the best and quickest way to hasten the secession of her Italian allies, for the news that Hannibal is at the gates of Rome, after destroying her army, will discourage any idea of intervention to avert her impending doom.

There must surely be a deeper explanation than any yet offered. What is the mainspring of Hannibal's whole career and campaigns? Vengeance — Semitic vengeance, conceived on a scale and with a majesty of design far removed from a crude vendetta. Yet vengeance is a primitive instinct, and the fact that it is the governing motive of a great mind does not affect its nature, only its mode of execution. When primitive man takes revenge he

does not dispatch the object of his hatred quickly, but prolongs his sufferings in order, by slow sips, to obtain the full flavor of the satisfaction of his instinct. The victim must not only pay for his misdeeds, but must know that he is paying. Let us apply our knowledge of this primitive instinct to the study of Hannibal's mind. To sweep down from the Alps and overwhelm Rome in a swift, Homeric conflict would enable the defeated to fall fighting in a blaze of glory. But if Rome's armies could be one by one destroyed, her allies turned to spurn her, the fruits of her years of conquest gradually plucked from her, while she, in pitiable weakness, and in the sight of all who had long feared her, awaited the inevitable end — what an epic vengeance!

IV

Five years pass. Hannibal is riding up to the walls of Rome, leisurely surveying the city which has been his magnet since he took the vow of eternal enmity in Carthage twenty-seven years before. His coming has been announced by a flood of terror-stricken refugees from all the countryside and by the fiery beacons of hamlets given up to the flames. Within the walls are the same panic, the same lamentations of women, as on the morrow of Cannæ. But the Senate is equally resolute, and far less moved. And Hannibal himself lets his eyes rest on the city, not with the satisfied look of one who holds the prize in his hand, but with the wistful glance of him who makes a supreme act of renunciation. He casts his spear over the walls — symbol of defiance, but also of futility — and a few days later turns his back on Rome, forever.

After Cannæ, many Italian cities had come over to him, led by Capua,

the nearest rival of Rome in size and riches. From Capua south down the shin to the toe of Italy, most of the land acknowledged his leadership. But even here numerous Latin colonies or Roman garrisons held out, and the heel as well as all the upper part of the leg of Italy was unshakably solid in fidelity to Rome. While the respite after Cannæ enabled Rome to raise fresh levies to replace her lost legions, Hannibal's new allies accepted his help rather than tendered him theirs. And his help was soon needed, for, although the Romans were too wary to risk another pitched battle, four armies kept watch on him, harassing his detachments and confederates, as well as giving both moral and timely material aid to the fortresses which he threatened.

More ominous still, the Roman generals were learning the art of war from their master, and some of his pupils, Marcellus particularly, began to score points in these desultory exchanges. In 213 B.C., while Hannibal was away in the south besieging Tarentum, the Romans laid siege to Capua, and, although Hannibal relieved it once, the Romans lured him away by a threat elsewhere and promptly returned to the siege. Their entrenched lines of circumvallation were soon so strong that a fresh and direct attempt at relief by Hannibal failed, and it was in a calculating but desperate effort at indirect relief that, in 211 B.C., he marched on Rome. But the opposing generals, both before Capua and in Rome, were not deceived by this strategic bluff and, maintaining the siege, detached only a small part of the besieging force as a stiffening to the ample new levies in Rome.

In an age when the strategic art was still far behind the tactical, which Hannibal himself had raised to the highest level in all history, this far-

reaching manœuvre of his was a landmark in the evolution of strategy, and the very fact that it failed of its purpose testified not merely to that supreme level-headedness which was the hall mark of the Romans, but also to the progress of their military education.

Soon one of them, graduating in the Hannibalic school of war, was to retort by a stroke of strategy more original than any Hannibal had tried. After Capua had fallen, — to be made an awful warning against desertion of Rome, — Hannibal's sole hope lay in support from his own people. Carthage had sent him only the most meagre reënforcements, although, strangely enough, she had been liberal in furnishing troops for Spain and even for Sicily. She was a 'nation of tradesmen,' and, while she could appreciate the value of war as a means to new markets or resources, she had no thirst for either empire or revenge, except as a by-product. Moreover, she was divided by faction, and there was a powerful 'peace party' whose policy was dictated as much by a personal feud with the Barcine party as by distrust of its 'imperialistic' designs. When Hannibal sent a message by Mago for reënforcements, his opponents turned his words as an argument against his request: "I have slain the armies of the enemy; send me soldiers." What else would you ask if you had been conquered? "I have captured two of the enemy's camps, full of booty and provisions; supply me with corn and money." What else would you ask if you had been plundered and stripped of your own camp? Thus they excused themselves for withholding the men and supplies which might have sealed the fate of Rome and averted their own. The Romans were right to term it the Hannibalic war rather than the Second Punic War — for it was a

duel between a man and a nation.

In default of direct support from home, Hannibal's remaining hope lay in reënforcements from his Spanish base. But here the Romans intervened. No diversion was ever better justified, whatever the apparent breach of the principle of concentration, than the action of Rome in maintaining large armies in Spain while she was fighting for her life on her own soil. The brothers Publius and Cneius Scipio were successful during the crucial years in keeping the Carthaginians so fully occupied in Spain that it was out of the question to send troops to Hannibal in Italy. True, in 212 B.C., the year before Capua fell, the Scipios were defeated and killed. This was perhaps the darkest hour for Rome since Cannæ, for in Italy she and her allies were feeling acutely the strain of the incessant struggle. But the twenty-four-year-old son of Publius Scipio, a youth who had distinguished himself in preserving the remnants of the Roman army after Cannæ, volunteered, when his seniors held back, to take the command in Spain. By a brilliant march and coup de main, he seized Cartagena, the main Carthaginian base in Spain, under the noses of three Carthaginian armies, and thus debarred them from transporting reënforcements to Italy by the direct and comparatively simple sea route. But although he was too weak to prevent Hasdrubal, Hannibal's brother, from leaving Spain next year by the land route, it was with such a small fragment of the Carthaginian forces that Hasdrubal had to tarry in Gaul to recruit and reorganize, losing two vital years before he at last pushed on into Italy, in 207 B.C. By then Hannibal's situation had changed for the worse, and, although still undefeatable, he was gradually being hemmed in in an ever-narrowing

area in the south of Italy, like a lion in the bush by the encircling beaters.

V

Hannibal is in camp at Canusium, a few miles from the battlefield of Cannæ. Facing him is the camp of the consular army under Nero—a name three centuries later to be of as ill omen for Rome as it is now for Carthage. Hannibal's outposts see a party emerge from the Roman camp; as they come closer they are seen to be prisoners, chained and under escort; a little closer and they are recognized as Africans. Then one of the escort advances and throws a human head on the ground before returning. Curious as to the significance of this byplay, the Carthaginian outposts pick up the head and take it to Hannibal, who recognizes the marred features as those of his brother. It is the first news he has had that Hasdrubal was even in Italy, and a cruel repayment of the honors he has always paid to his own fallen antagonists. Soon two of the captives, released for the purpose, arrive to give him a full account of the disaster.

The messengers sent by Hasdrubal to tell Hannibal of his arrival in Italy, and his plans, had traversed the whole length of Italy safely, only to miss Hannibal, owing to one of his frequent changes of position, and to fall into the hands of Nero. Thereupon Nero had resolved on a bold cast, and, leaving part of his force still facing Hannibal, had gone north by forced marches to join the other consul in a concentrated blow against Hasdrubal. In seven days and nights he covered some two hundred and fifty miles, defeated Hasdrubal at the Metaurus by a brilliantly conceived and executed transfer of force from one flank to another, and marched back quicker

than he had come, so that he was again with his whole army facing Hannibal a fortnight after he had silently slipped away.

Hannibal, recognizing that his last hope of conquest had vanished, quitted the scene of his supreme triumph, nine years before, and fell back to Bruttium, the toe of Italy, there to stand at bay, a stricken but still unapproachable lion, for another five years. But he could recognize a still deeper significance in this disaster. For he, the archdeceiver, had been himself deceived, outwitted at last by men who were tyros in strategy nine years before, masked by a shadow while his opponent was carrying out a strategic manœuvre more far-reaching than any he had ever conceived—one unsurpassed for two thousand years, and made possible by the highly trained mobility of troops whom his campaigns had converted from citizen levies into expert professionals. Only when he was present were the Roman arms still powerless. For sixteen years he strode to and fro through a hostile country, untamable, and after Cannæ rarely challenged; supported only by his own exertions, yet making the war support itself—a feat without parallel in history. To have held his mercenary and heterogeneous band together through the perils of the Alps and the march into the heart of Italy was remarkable, but as a testimony to the unique force of his leadership in war it was nothing compared with the fact of holding their devotion, so that none offered to betray or desert him, through fourteen years of fading fortune. And he quitted the land without molestation, the Roman armies daring no more than to follow him down to the shore at a respectful distance.

Hannibal's vigil of revenge in Italy was ended by an urgent summons of recall to Africa to save Carthage from

the rising star of Scipio. For Scipio, after conquering Spain and destroying there the whole fabric of Carthaginian dominion which Hamilcar had woven, had carried the war into Africa, defying the military wiseacres of the Senate who were still prodding cautiously and ineffectively at the lion in his den. They argued, with the obstinacy of orthodoxy so familiar in the modern World War more than two thousand years later, that it was essential to concentrate all efforts against the main armed forces of the enemy — in Italy. Scipio, an ancient Winston Churchill in vision and initiative, preferred the more original strategy of manœuvring against the enemy's rear; by slipping past the arm to strike at the heart of the enemy power, instead of putting his head in its mouth. Annoyed at Scipio's presumption, his senatorial opponents not only sought to deprive him of command on a trumped-up charge, but, foiled in this, took care to give him as little support as Carthage had given his rival.

With two disgraced legions and a few thousand volunteers Scipio sailed from Sicily and confounded the prophets of gloom by making good his hold on African soil. With prudence balancing audacity, he first sought to secure a base and to weld his troops into a fighting force. Then he sprang, shattered the field armies of Carthage and her African allies, and, before Hannibal could return to the rescue, forced Carthage to sue for peace. But the news that Hannibal had landed encouraged Carthage to break the truce, and Scipio's position, isolated on foreign soil, looked as black as his opponents at home could wish. By a masterly strategic move, however, he tilted the scales in his favor. Instead of falling back along the coast to his base, he advanced inland up the Bagradas Valley — a move which apparently

isolated him still more. Actually, however, by this menace to the main source of supply for Carthage, he compelled Hannibal to follow him to a battleground of his own choosing and toward the Numidian reinforcements which were expected from his own new allies.

VI

The shadows are lengthening on the battlefield of Zama, in the year 202 B.C. From behind a rampart of corpses advances a line of Roman legionaries, unexpectedly thin if also unexpectedly long, treading carefully to avoid slipping on the blood-soaked ground. Hannibal has been awaiting this moment all the long day of fighting. His 'Old Guard' of 24,000 veterans from Italy has been held well back in reserve, immobile and fretting while the battle raged before their eyes. They have seen the thunderous charge of the elephants nullified by Scipio's originality in leaving lanes between his cohorts, down which the maddened beasts took the line of least resistance to themselves — and least damage to the Romans. They have caught glimpses, through the dust clouds, of the swirl of the cavalry fight on the wings, which ended badly, but also in the disappearance of both pursuers and pursued. They have seen their first two infantry lines, composed of Gallic mercenaries and home levies, shattered and dispersed after a fierce struggle. But the victors must surely have suffered severely and become disordered — then their own chance will come for the decisive counterstroke. To their disgust, however, they have seen that Scipio had the impudence, under their very noses, not only to reorganize, but to change his dispositions, securely screened by the rampart of bodies, and in the knowledge that they dare not risk

disarranging their close-ranked formation by an advance over such corpse-littered ground. The Hannibalic host have been still more astonished to see that Scipio is deploying his rear lines on the flanks of his first line. Surely he is mad to stake a single thin line against their deep mass, even though it gives him the momentary advantage of overlapping their flanks!

At last the Romans are coming — now they are clear of the barrier of dead. Hannibal gives the long-awaited signal and his massive phalanx bears down on the slender Roman line. What if they be checked for a moment by the stream of missiles which that line can shower, owing to its extension? Once the opposing ranks are at hand-grips, weight must tell, and the lighter be pulverized.

But the rearmost Carthaginian ranks hear the thunder of hoofs behind them. It is Scipio's cavalry returning from the pursuit, as he calculated when making his novel disposition. The decisive manœuvre of Cannæ is repeated — but reversed, and the result also. Scipio has not only learned Hannibal's art, but has borrowed his instrument — superiority of cavalry.

VII

A few weeks later — in the city of Carthage. The assembly is discussing the peace terms which Scipio has offered — unexpectedly moderate, as no extra penalties are exacted for the violated truce. Yet an orator, closing his eyes to the helplessness of Carthage, is advocating a continuance of the struggle. Hannibal, tired of listening to those who for sixteen years have merely made war with words, rises from his seat and pulls the speaker down. At a murmur from the assembly, Hannibal asks them ironically to pardon him if, after thirty-six years' service

abroad, he has forgotten the etiquette of debate. Then he urges them to accept the terms.

And for seven years he strives loyally to fulfill them, diverting his genius, as many-sided as Napoleon's, into new channels — the restoration of Carthage's prosperity and the improvement of its administration, financial and judicial.

With the collapse of his titanic scheme of vengeance, has the spirit which inspired it changed? Having learned the futility of destruction, has he turned his energies to reconstruction as a worthier memorial of his genius? Or merely as a means to an end — that of building up the material strength of Carthage for a fresh military cast? We shall never know. For now a new vengeance becomes incarnate, as implacable as his own — the hatred of Rome for the man who has committed the crime of making Romans tremble. In vain Scipio protests that such vindictiveness toward a man is unbecoming to the dignity of the Roman people. Cato, with his parrot cry of 'Delenda est Carthago!' carries the first step of his programme of persecution, and to avoid being brought to trial Hannibal flies from Carthage by sea. Nine years of boyhood filled with visions, seven of middle age filled with disillusion, are all that Hannibal saw of his native land. Henceforward he sets out again on the stony path of revenge. He has failed to raise the West against Rome; for the remainder of his life he will try to raise the East — to rouse the lands whence came his forefathers, before they too feel the iron heel of Rome. From Tyre, the cradle of the Phœnician race, he goes to the court of Antiochus, King of Syria, who is contemplating an invasion of Greece to stem the Roman tide. Once more Hannibal designs a vast scheme for

the conquest of Italy — that Antiochus shall advance through Greece while he, with the loan of a force, goes to Carthage to raise Africa against the oppressor, the two armadas then to converge on Italy. The jealousy and egotism of Antiochus make this scheme stillborn, and soon Antiochus, the victim of his own vanity, is conquered in Asia Minor by an invading Roman army. The Roman peace terms demand the surrender of Hannibal, but he flees in time, first to Crete and ultimately to Bithynia, where the King, Prusias, promises him a safe refuge.

VIII

Dusk deepens into darkness. The house which Prusias assigned to Hannibal some years before is encircled by a cordon of shadowy figures, stealthily creeping into position as a guard of dishonor. Then the occupants hear the rattle of accoutrements as an armed party marches into the porch. Hannibal has no need to be told the meaning — since a Roman envoy arrived at the court of Prusias he has been anticipating some such action, for his trust in the faith of kings is as

slight as his knowledge of Rome's ceaseless pursuit of himself is sure. His attendants hurriedly rush to see if there is an avenue of escape, if one of the secret passages which have been prepared is open. Everywhere, however, they are brought to a halt by the glint of arms. The spies of the King have done their work well; his band of assassins are watching every bolt hole. But there is one resource they cannot block. Hannibal calls for poison, long kept ready, and with the comment, majestic in its irony, 'Let us release the Romans from their long anxiety, since they think it too long to wait for the death of an old man,' he drains the cup.

Thus, defying his lifelong foes to the end, passed the one man who might have diverted the Roman flood which was soon to submerge the whole Mediterranean world — the man who almost changed the whole course of history.

'The wheel has come full circle,' and with the completion of the cycle the curtain drops on the supreme drama of vengeance, leaving to history the memory of its futility, but also of its sublimity.

STUDIES IN TEMPERAMENT

I

WHEN the Great Trump sounds and the Last Tribunal is set up, it is my belief that, amongst all the sectaries, Friends will have the best right to rejoice. Truly they are excellent folk. 'When I came to eleven years of age,' wrote the original Charles Fox, 'I knew pureness and righteousness, for while I was a child I was taught how to walk to be kept pure.' When was Quaker ever in trouble of his own making? He walks discreetly and soberly, injuring none. If a Quaker does get into trouble, it is because orderly processes go awry in this disorderly world.

Herbert Hoover has received the Friends' inheritance of righteousness, or at least has been taught it since he too came to eleven years of age. But how different from that righteousness which Colonel Roosevelt so vehemently preferred to truth! The militant Mr. Moses, to be sure, did call on him to conduct a crusade. But the soldierly symbolism was misplaced. Never since Saint Louis was a more pacific leader named to a crusade. Armageddon is no place for him. His battlecry to his followers is to be as sober, as sensible, as industrious as he. Mr. Hoover's real difficulty is that he is a reasonable man in a very unreasonable cosmos.

Another major inheritance Mr. Hoover has. By temper and training alike he is a Man of Science. He has the scientist's passion for perfection, his impatience with mistakes, his love of order, his need for lonely intercourse with a few kindred spirits. The market place is an abomination to him, and

even the club is something of a nuisance. His idea of a social hour is one or two choice friends talking perfectibility. He likes to foretell how the expert is to 'hook up' the world's industries, how kilowatts and horsepower are to supplant sweat and backache, how after six hours' work, or maybe five, the future operative will drive his high-powered car to the home where breakfast porch and sun parlor are symbols of a world's progress. At such times his eye lights up, his utterance becomes sure and rapid, he speaks like a prophet visioning the future. For the material progress of mankind, new conquests over nature, new comforts, new foods, new bathrooms, are to him more than a philosophy, more than a passion. They are a religion.

Far be it from me to suggest improvements in the structure of this best possible of worlds. With my fellows I accept the universe and merely state the observable fact that nature may be tractable, but human nature is certainly intractable. For the engineer the world is a garden where wastes can be turned into flower beds; but, as Aristotle pointed out some centuries ago, politics, being the organized governance of human nature, is more troublesome stuff. To mould and bend and shape politics transcends difficulties in the natural world. Perhaps Plato divined more surely than Aristotle comprehended it. If you would rule the perfect state, he said, you must find your philosopher-king. And Quakers are hardly the stuff that kings are made of. With them philosophy and kingship are not on friendly terms.

Among Mr. Hoover's followers, two

out of three will tell you they are voting for him because he is not a politician. But when you come to think of it, that is a curiously unscientific reason to advance. Politics is the real social science, and the amateur politician is neither better nor worse than the amateur scientist or the amateur plumber. A professional politician watches men as Maeterlinck watches bees or Coolidge a ball game. He is intensely interested in goings and comings, business and pleasure. He studies men because he likes them. That Mr. Hoover is not a politician must be reckoned among his liabilities.

II

These two, Hoover and Smith, are Plutarch's men. Oh, for a Plutarch to contrast them! What a contradiction they are: Hoover with his quiet, orderly ways, Smith with his rough-and-ready ones; Hoover giving orders with his flat, low voice, Smith grunting them out with varying degrees of emphasis. Both are head and shoulders above the men about them, both really great administrators, one by reason, the other by instinct and the cogent power of proving by words what this instinct has taught him to be right.

Give me his pleasures and I'll give you the man. The lonelier the stream, the happier Hoover as he whips it. Better it were that men went about their business like fishes, for in a silent world Hoover could accomplish still more. Smith could concentrate while his secretary ran a riveting machine. He can knock men's heads together without losing his temper, fight the long day out at his desk, always struggling forward, edging a little nearer his objective; and when time's up he goes to rest himself on the beach at Coney with a hundred thousand yelling, cavorting fellow creatures. Always the

human scene. From Oliver Street to Albany it has been crowds, crowds, all the way, and if he trudges on to Washington he will go by the road where men are thickest.

Smith loves his fellows and understands them. The eccentricities and absurdities and unreasonableness which mark men from animals irritate Hoover. To Smith they are like the dyer's hand, subdued to what it works in. Humor, of course, tempers his soul and lends its quaint enveloping charm to the ugly picture of struggle forever before him. Hoover's humor is more like the trout's, or at most the silverling's — neat and shiny, but hardly comic. They take a joke in differing ways, these men. The newspaper 'boys' who traveled from New York to Palo Alto for the candidate's daily story found him about as gossipy as the multiplication table. They spoiled his fun, of course, but they reflected that he spoiled theirs; and when this noisy crowd had driven every fish from the pools of his favorite brook, it was n't very honorable, to be sure, but it was natural that one of the talented photographers should have snapped a small whale at the end of Hoover's delicate line, and sent the fake to his paper. It was not funny to Hoover. It was simply dishonest, as it undoubtedly was, and he was mad clear through. But when the boys at Albany tried to photograph the governor as if he were laying bricks, Smith merely grunted his refusal. 'That's boloney, boys,' he said. And the photographer, who knew that bologna ought n't really to be made of cat's meat, stopped dead.

Here are two honest men, fair-minded, free-minded. But when Hoover speaks, the tenets of Republicanism are forever in his thoughts. It is not many years that he has known them by heart, and the party leaders behind him are watchful lest he forget. They

know that seven years ago the direful League numbered Hoover among its advocates. They have not forgotten that he has had a friendly word to say for the workingman's beer. Even the economics of the Home Market Club have not always had his sympathy. Misunderstandings might arise, and prudence is the watchword. Hoover is absolutely honest, but he counts the cost. He prefers to speak of the Eighteenth Amendment without mentioning the Volstead Act, or of coöperative marketing without reference to the McNary-Haugen Bill.

But with Smith honesty means courage, and truth means candor. Candidates habitually tell the truth, but the whole truth is a more awkward matter. It is long since we heard Cleveland blurting it curtly out, and now Smith speaks in a way that makes the politicians whistle. How many candidates have we known who would be content to stand up and be asked questions by a bumptious evangelist who has sought notoriety and found it? Vile names they call him, and leave to innuendo what they dare not speak in words. They say he has favored the saloon, flouted decency, protected prostitutes. Another running for high office would hide behind his own self-respect and pass this by in superior silence; but Smith, with all his masterfulness, is in elemental things humble-minded. Decency, friendship, religion, the things near his soul — when you flout these his sincerity is outraged; he comes from a school where a man cannot be called a liar and hold his peace.

How far are we from the days of Roosevelt and Wilson! The heroes are silent. No passionate voice tells us to do our duty. Doubtless the preachers fretted us with their chiding, but something in us misses them still: Roosevelt with his gospel of never-ending struggle, and Wilson with his eyes on a land

fairer than men have known. Neither of these protagonists to-day turns the American eye inward. Neither makes us feel our shortcomings. We are come into a more practical world. There are more coupons to cut, more motors to drive, and the duty of statesmen is to multiply our possessions. But in the hurlyburly you can hear Hoover's voice asking for order and quiet, a larger leisure and freedom from material ills; and Smith's reminding us that the struggle is common, that the Haves must help the Have-nots, and that sharing the other fellow's load is the first duty of citizenship.

III

Smith is at once the victim and the beneficiary of the most popular of American fallacies. His education is a political asset, simply because, in the conventional sense of the term, education he has had none. Because a President of matchless genius triumphed over poverty and the want of most desirable things, the public has ever since decided that, whatever a man may wish for his own children, he should prefer for his President's childhood the advantage of no advantages. This is the reverse side of Lincoln's legacy to his country. His successors have advertised it. What did Garfield not owe to the dramatization of the towpath, or Coolidge to that unlovely New England parlor, or Hoover to the tiny cottage with which he never sought an association until he ran for office?

Smith has struggled up from a boyhood of city hardship and city ignorance. The countryside is a friendly foster mother to the poor. In the city, poverty is greedier. It takes all. The reeking gutter and the steaming sidewalk, the forlorn tenement, the hot crowded rooms, full of a congeries of odors blended into the stench of poverty.

A background like this stifles and smothers. Here the child sees, smells, and listens to things evil for all, but terrible for youth. Smith is the first of our national leaders who knows in his marrowbones what these things are. Wonderful it is that he has come through with power and with vision.

Then of his training. How little they know of human nature who point at him because he once did what was asked of him by Tammany Hall! Tammany, which, for all its sins, has seen poverty and treated it as human. The charges that Smith voted against decency under orders have been destroyed charge by charge, but that his association with Tammany was long and intimate is fixed in the record. Do you suppose that William Allen White remembers those comfortable days of his evangelistic youth when in his new tie and Sunday suit he took himself away with his book to spend a loving hour with Robin Hood — Robin, the shameless robber who befriended the poor folk the fat Abbot did not care for? Well, forty years ago Tammany Hall was Al Smith's Robin Hood. It was Tammany Hall that brought his mother coal and gave her boy a chance. And in that pitiless East Side young Al learned that a man's chiefest virtue is not in the cardinal Seven, and that without loyalty even a dog is a yellow cur.

To men like White — good men, honest men, even human men — I commend the story of Lincoln entering politics which the unresting genius of Beveridge has just fully brought to light. How about the society of the Clary Grove boys, Mr. White? Should a hero keep such smirching company? Later, at Springfield, Lincoln served first of all his boss. He voted as he was told, and the votes he cast are not mentioned in the eulogies. Only gradually was that great tragic head lifted up so that he could see first beyond his

gang, then beyond his party, and at the end beyond his nation far into the future, where self-interest is the interest of all, and where enemies bind up one another's wounds.

So in Smith's career you see him running errands for the ward boss, then as the unquestioning lieutenant of the party leader, then as the governor, grown to self-reliance and responsibility, using the party, but seeking the people's good.

No, Mr. White, the story that Athene sprang from the godhead into the world, perfect and full-panoplied, is a pretty tale, but it is fiction and should not be believed in Kansas. Even in Tennessee they accept the evolution of character.

White at least speaks out, and the yelping pack of the little-minded — Straton and the rest — howl in the chorus. They say their silly say, but at any rate their utterance is above a whisper. For to-day decent men are asking, Shall whispering become an American habit? Secret slander is not a pretty thing. In my own youth the depths of political muck were sounded when men in little knots dropped their voices to tell some succulent scandal of that private life from which Mr. Cleveland, for the nation's great good, was called to the White House. In my own boyhood I recall, with that lightning clearness which memory gives to things that seem symbolic, listening to a man whispering how one bitter January night Mr. Cleveland in a drunken fury had pushed his wife, in her night-dress, out of the White House door. With the maturity of my twelve years I discounted that story, and a generation later when men (it was Democrats this time) hinted to me how Roosevelt's mind was disintegrating under orgies of alcoholism, I thought it funny, when I should have thought it tragic. But I am older now, and do not think it

funny when evil lies are whispered of Governor Smith.

Never is it 'I saw him,' but always 'I have a friend who positively knows.'

Oh, the base meanness of it, the renunciation of straightforward Yankee ways! In his own state they know him—or at least the masses do—well enough, but among strangers at a distance little by little sibilant scandal makes its way. Nail in your thoughts the most famous of all Lincoln stories, his reply to the talebearers of General Grant: 'What is his brand of whiskey? I'd like to send a barrel to all my generals.' And the glorious summary: 'I need that man; he fights.'

We may need that man. He fights.

IV

God made the country; man made the town. All of us feel the significance of the changes which are making the United States an urban continent. The great open spaces are narrowing. Suburbs are pushing deeper and deeper into country we thought forever safe. For generations young people have been moving from the farm to the city. Now the city itself is moving toward the farm. Go to California. All the way the houses straggle along the railway. The lonely cottager is slipping into history after the hunter and the ranger. The country is filling up. Whether we like it or not, the city mind grows dominant in politics, as for a full generation it has grown dominant in custom and in thought. It is natural that many of us are fearful as our inheritance changes. The America we have received from our fathers has gone from us, and the America we have we may not bequeath to our sons.

This is the first great challenge of Smith. The city is in his mind and heart. He is sign and symbol of a

great change. Hoover, however modern, however scientific-minded, seems to us a less definite break with the traditional. He calls to mind all the sweet and peaceful generations of our rural past. Shall we hold to the traditional, or is it time perforce to meet our new destiny and to think for ourselves?

One other deep canyon divides the candidates. Smith is a New Man. He speaks for millions who have not learned all our ways; and why should they, when we will learn none of theirs? Not since Jackson torpedoed the Federalists has the stratified social consciousness of America felt the tremor that seems to precede the earthquake. The old order may close its ranks and withstand the shock. But the great forces are unchained, and in the end, sometime, they will have their way. Will the time and will the leader be so propitious as they are to-day?

A strange campaign it is. On the surface are the issues casual almost, and not exciting, but below the issues are two contrasting personalities, each strong enough to sail the ship on bold new courses. And beneath the champions themselves, far below their political convictions, plumbing depths which no American election has ever stirred, there is joined one issue at the very core of the republic and of society itself. Only bigots and fanatics bring it to debate, for it is deep beyond reason and its elements are primal. 'Thou shalt have none other gods but me,' spake Jehovah, but the people parodied his commandment. 'Thou shalt have none other gods but mine' has been the outcry of the ages.

To change the course of that red record America was peopled, and the experiment of the United States was dedicated to the proposition that a man's religion must not be held against him. Vain and futile hope! In the

human heart prejudice is deeper than reason. Hypocrisy which cloaks itself always in words and laws, in shibboleths and fair phrases, now declares everywhere that the issue is Tammany, or farm relief, or sumptuary laws, or, with a holier accent, 'the inviolability of the Constitution.' Keep the Constitution inviolate! Before God and the people, may we not ask why the Eighteenth Amendment should be sacred and the first of all itself ignored?

These are the written words which once summed up the best hope of the world:—

'NO RELIGIOUS TEST SHALL EVER BE REQUIRED AS A QUALIFICATION TO ANY OFFICE OR PUBLIC TRUST UNDER THE UNITED STATES.'

Let us vote as our consciences dictate. Let us vote for Hoover or for Smith as men. Let us honestly prefer the Republican promise of good business or the Democratic plea for fair dealing. Let us vote to continue our experiment in Prohibition or put mere Temperance first. Let us save the farmer by the way we prefer. But let us not try to fool our own souls by voting before the world for a secret reason which the more decent of us dare scarcely even murmur to ourselves.

When the preachers cry out that the issue of issues is the nullification of the Constitution, that Constitution established to ensure the blessings of liberty to ourselves and our posterity, they proclaim a truth they do not understand.

E. S.

HAMSTRINGING INSURANCE

BY HOWARD DOUGLAS DOZIER

I

THE assets of the life insurance companies chartered in the United States exceeded on December 31, 1926, the market price of all classes of stock of the one hundred corporations whose common stocks were the most active, the highest-priced, and the largest-dividend-paying of all those listed on the New York Stock Exchange.

A giant insurance and investment corporation, after merging these one hundred companies, could have declared a sizable stock dividend and continued cash dividend payments equivalent to the old rates. It could have assumed the bonds of the con-

stituent companies, met the interest payments, and had enough resources left over to set up a respectable surplus. In addition, it could have paid the bankers, lawyers, and economists who planned and effected the consolidation handsome fees for their services.

The newly formed corporation would have had a virtual monopoly over most and a commanding position in all of the iron, steel, nonferrous metal, and oil industries; the telephone, the telegraph, and the express services; the electric light and power and the gas industries, including the supplying of most of the machinery used in these fields; the production of automobiles, except the Ford output; the bottle and

can manufacturing industries; the construction of passenger, freight, and sleeping cars and locomotives and their repair, including the furnishing of parts kept in stock; the operation of sleeping cars; the refining of sugar; the preparation and sale of tobacco, to say nothing of chewing gum; the mail-order and chain-store business; the fruit-carrying trade; and the making and distribution of farm machinery.

Yet those who owned the insurance companies would have owned them still, and, in a large measure, those who owned the corporations would have owned them still. For policyholders of insurance companies and stockholders of corporations are recruited from the same group, and that group is getting to be pretty much everybody.

Through stockholding men have become directly owners and partners in enterprise, and through insurance-policy-holding they have become indirectly creditors of the enterprises which they own.

Any attempt to translate the enormous potential financial power of insurance companies into corporate managerial activity would equal in folly an attempt to level Pike's Peak with a pumice stone.

This paper advocates no such translation. It does suggest, however, the desirability, in the interest of uniformity, of removing certain restrictions which some of the states impose upon insurance companies in the investment of their funds.

The daily income of some of the largest insurance companies is as much as one million dollars. To find safe and profitable employment for this amount of money in an investment field as wide even as is consistent with safety is no mean task. To find such employment in a field restricted far within the bounds of prudence is a stupendous undertaking.

Each insurance company doing business in more than one state is subject to two classes of regulation: that imposed as a condition of its corporate existence by the state from which it holds its charter, and that imposed by the states in which it hopes to operate.

These regulations as to bond and mortgage investments are well-nigh uniform throughout the nation. They vary as to stock investments. Massachusetts, a comparatively liberal state, permits domestic insurance companies to invest 10 per cent of their capital and surplus in stocks, but no insurance company may own more than 10 per cent of the outstanding capital stock of any one corporation. New York, a more conservative state, forbids common stock investments and allows only 2 per cent of its insurance companies' total assets to be invested in preferred or guaranteed stocks of solvent corporations. New York cannot, therefore, enjoy fully the liberality of Massachusetts. Texas, which may be denominated provincial so far as its insurance laws are concerned, is fairly liberal in its investment requirements of domestic companies. It imposes upon outside companies, however, the condition that they invest in Texas securities 75 per cent of the legal reserve on policies carried by Texas residents. It defines these securities as Texas state, county, and municipal bonds, mortgages on Texas real estate, and first-mortgage bonds of any solvent corporation chartered under the laws of Texas and doing business in the state. Stocks are not included.

The variation in the requirements of these three states with respect to the investment in stocks is typical, and is sufficient to explain why stocks constitute an almost infinitesimally small percentage of the assets of life insurance companies.

It is to be hoped that the recent

revision of the New York law is the beginning of a movement in pivotal states which will make it possible and practicable for all insurance companies to invest a reasonable amount of their funds in good preferred and common stocks.

As a test of sentiment of those most vitally interested in the liberalization of the investment opportunities enjoyed by life insurance companies, this question might be put to a responsible official of some reputable and reliable insurance company: 'Would you be unwilling for your company to buy a reasonable amount of the common stock of any of the corporations whose bonds you already hold?' And this to any policyholder of the company who is also a conservative investor: 'Would you be unwilling for your insurance company to invest in the same stocks which you yourself hold, and to an equal amount?'

The broadening of the field of investment for insurance funds so as to include those stocks generally recognized as belonging to the investment class would be advantageous to the policyholders, to the insurance companies, and to corporations. Moreover, it would tend to have a stabilizing effect upon the stock market.

II

The relationship which exists between an insurance company and the policyholder is contractual, legal, financial. The contract establishing this relationship calls for the payment of fixed sums of money conditioned in amount and method of payment upon eventualities mutually agreed upon.

On the other hand, the relationship which exists between the policyholder and his beneficiaries or dependents is social, implying a moral rather than defining a legal obligation. The ultimate object of the insurance contract

is to help the insured meet these moral and social obligations to his dependents.

The safeguards and restrictions which the various states have thrown around the investments permissible to insurance companies are admirably adapted to the protection of the legal contracts which exist between the companies and their policyholders. They are ill adapted for the complete or even the partial protection of the moral and social obligations of the insured to his dependents.

The present arrangement leaves the dependents, the main objects of the whole insurance scheme, exposed to an insurable but as yet uninsured hazard — namely, the loss incident to a decline in the purchasing power of money.

The next great forward step in insurance bids fair to be the working out of a plan for the protection of the purchasing power of the estate which insurance is designed to create.

Because of the recent price revolution, many dependents for whom adequate protection had been made under the old order found the provision inadequate under the new. The real value—the comfort-commanding power—of so many life insurance policies has been halved recently that it is not necessary now to amplify.

The hazard of the declining purchasing power of money rests altogether upon the insured, and is borne largely by the beneficiaries. This risk should be underwritten by insurance companies and should be paid for out of a reserve set up for that purpose. The means are at hand for setting up and maintaining such a reserve, and can be used if the state laws are so liberalized as to make it practicable for insurance companies to invest a reasonable amount of the funds of their policyholders in good common stocks.

Insurance is the only method yet devised whereby a man can create an

estate and then pay for it if he lives and have his indebtedness on account of it canceled if he dies. But the preservation of the purchasing power of an estate is scarcely less important than its creation. Striving to create that which in the end proves not to be, is futility.

So long as the purchasing power of money fluctuates, some way must be sought by policyholders whereby they can keep step with what Professor Fisher calls the 'dance of the dollar.'

In the absence of institutional means, resort must be had to individual plans and effort for protecting the purchasing power of the estate created by insurance.

A recognition within the last few years of the fact that a diversified investment in common stocks of sound corporations affords a means of keeping step with the dizzying dollar has led to the establishment of investment trusts.

Since an insurance company can create an estate before it is paid for, but cannot preserve its purchasing power, and since a trust or an investment trust can preserve an estate already created and paid for, but cannot create one in advance of payment, he who would both create and preserve must hesitate between two plans and adopt neither. The creation of an estate and the preservation of its purchasing power should go hand in hand, and life insurance companies should so operate as to perform both functions. Until such time as they may do both, or until investment trusts expand their activities to include insurance features, he who would both create and preserve his estate must rely upon such means as are available to him as a lone individual. The efforts of two men to meet the situation are responsible for this paper.

They both carry insurance. They have borrowed on their insurance

policies and have used the funds to purchase good stocks on a conservative margin. Having already created an estate of a given number of dollars by means of insurance, they are now predetermining its character. Upon the death of either, his widow can pay his debts and have left unencumbered an estate consisting of stocks, the purchasing power of which has through the years gone up and down as the purchasing power of money has gone down and up. For, generally speaking, periods of rising prices — that is to say, periods of declining purchasing power of money — are periods of increasing profits, and vice versa. And profits accrue to stockholders only.

These men may not have acted wisely. They may fail in their object. But as yet no insurance company, bank, or investment trust furnishes an institutional service through which they can create an estate and preserve its purchasing power while they are paying for it.

III

From the standpoint of the insurance companies themselves, it is highly desirable that an element of elasticity be introduced into their holdings. If permitted to invest in good common stocks, they would become part owners in industry in behalf of all their policyholders, both those who own stock on their own account and those who do not. The companies would share, for their policyholders, in such economic development as might take place. So sharing, additional funds would become available for permitting a reduction in premiums, for the payment of larger dividends, or, what is better still, for additional paid-up insurance, any one of which is of the essence of preserving the purchasing power of the unpaid-for insurance estate.

Many insurance contracts now in

force were entered into at a time when bonds and mortgages eligible for life insurance investment produced a higher rate of return than similar securities do now. The majority opinion among business men and economists is that, barring war or some other capital-wasting catastrophe, the trend of the long-term interest rate is and will be definitely downward for some time to come. The capital-producing capacity of the country is so great — and it is becoming increasingly greater — that the price of capital will decline. Some go so far even as to predict a 3 per cent return in the not distant future on such high-grade bonds as those generally held by insurance companies. The investment of funds now being collected from policyholders, or the reinvesting of those which become available through the maturity or the calling of securities already owned, in low-interest-bearing securities now eligible for insurance-company investment is continually lowering the average yield on all holdings. Yet insurance companies must continue to meet those contracts already entered into which call for the payment of definite sums of money.

Insurance companies, as well as other investment institutions, are now doing business in a falling market. They are meeting with the same difficulties experienced by others similarly situated. They are finding it hard to buy at a fixed price and sell at a profit on a declining market. They cannot go on indefinitely buying income at a fixed price and selling it at a declining one. Should the decline in interest rates continue long enough, it is conceivable that insurance companies might have to raise premium rates in order to secure sufficient money with which to purchase enough income to meet their maturing obligations.

An escape from such a possibility is

to be found in the more lucrative employment of their funds. A more lucrative employment is the investment of a reasonable portion of their resources in high-grade common stocks.

This would involve little or no risk, and occasion little, if any, additional expense. No institutions are in a better position than life insurance companies to know or to find out what stocks of what corporations rank as investments. Moreover, the machinery for investigating and passing upon the character of stocks is already set up and has long been in operation in connection with the determination of the character of other securities.

There is considerable irony in the fact that so much machinery has been set up to help the policyholder create an estate through the purchase for him of mortgages and bonds, commonly believed to be the safest securities, while he has been left to fend for himself in his attempt to preserve his estate through the purchase of stocks commonly supposed to be less safe than bonds. His point of greatest danger is his point of least protection. The present arrangement reverses the natural order. But it was said long ago that the first shall be last and the last first, and that to him that hath shall be given and from him that hath not shall be taken away even that which he hath.

IV

Industrial, public utility, and railroad corporations would all benefit if their share capital should become generally eligible for life insurance investment. Eligibility for investment does not imply obligation on the part of the insurance company to invest. The possible broadening of the market for corporate stocks would enable successful corporations to raise larger percentages of their necessary capital

through the sale of stock, and thus to maintain a healthy financial structure.

Of the twenty-one and three-quarter billions of dollars of capitalization of the Class I, II, and III railroads on January 1, 1927, about twelve and a third billions, or nearly 60 per cent, were represented by bonds of various kinds. Of these bonds, insurance companies own in the neighborhood of two and a half billions. This is a few millions more than the bonded indebtedness of those public utility, industrial, and miscellaneous corporations already referred to as being dominant in industry.

Had insurance companies in the past been free to invest in good railroad stocks, the risk incident to the conduct of railroad business would not be so concentrated as now. Railroad capitalization would not be bond topheavy, and that risk due solely to such a situation would not have developed. Risk prevented does not have to be avoided or borne.

The capitalization of many industrial and public utility corporations, and possibly one or two railroads, consists entirely of one class of stock. This is wholesome. When such is the case, the security partakes of the character of a bond in the matter of safety and retains its character as stock in that it shares in profits. Had insurance companies been given more latitude in the past, they would undoubtedly now be comparatively heavy stockholders of those sound corporations of conservative financial structures. Moreover, the influence of the insurance companies would have made for capitalizations consisting of larger percentages of stock.

V

It may not be susceptible of direct proof, but it seems to be a reasonable assumption that the advent of insur-

ance companies as factors in the stock market would have a stabilizing effect upon the market. The question is immediately raised whether it would not have exactly the opposite effect. Would not the insurance companies buy stock, lock it up, and leave a floating supply so small as to make possible corners, and to be insufficient for the speculative appetite? Those who hold this to be true reason by analogy that insurance companies would pursue the same policy as to their stock holdings as they do now with respect to their bond holdings.

While it is true that insurance companies are interested mainly in income, they are not averse to selling one income and buying another of equal size and certainty at a smaller price. It is generally true that they hold their bonds for comparatively long periods of time, but this is because of the fact that the price varies within small range and slowly, a circumstance due to the gradual change in the interest rate at which bond income is capitalized in determining bond prices.

This policy of insurance companies has resulted partly, no doubt, from the restrictions and conditions under which they have operated. If conditions should be changed so as to permit them to invest in stocks, there is no reason to believe that their action would not be in conformity with the changed circumstances.

As already suggested, it is probable that the total amount of corporate stocks would eventually be increased if insurance companies appeared as buyers in the market. The increase would make for market stability.

There is the possibility that a given amount of stock in the hands of insurance companies, with all their facilities for knowing economic and financial conditions, would be more fluid than an equal amount widely

scattered among many individuals. Viscosity and inertia increase with numbers. Insurance companies, by buying and selling or by standing ready to buy and sell stocks on the basis of conditions, whether present or future, as ascertained or carefully predicted by their highly trained and highly specialized organizations, would aid materially in determining and discounting accurately and conservatively those factors which determine, or are supposed to influence, stock prices.

Where knowledge is, doubt and uncertainty and fear do not abide. Insurance companies doubtless could substitute much market fact for what is now market fiction. To the extent that they did so, factors making for uncertainty, and therefore for speculative activity, would be eliminated and supplanted. There would be more sweep and swell and less splatter and splash in the stock market.

VI

But, however convincing the logic of facts, it is the logic of events which will bring the question of liberalizing investment opportunity for insurance companies to the fore for discussion, decision, and action. Foreign insurance companies doing business within the United States enjoy wider investment opportunities than those enjoyed by the companies holding charters from the various states.

One company writing insurance widely in the United States, but chartered by a foreign country, lays claim to the distinction of being the largest single common stockholder of

the largest single corporation in the world, a corporation whose business is largely within the United States.

This corporation pays the foreign insurance company nine dollars a share dividend on every share held, and every two years or so sells it additional stock on such terms that the rights to subscribe are worth from six dollars to fifteen dollars per share. This is the equivalent of an extra annual cash dividend of from three dollars to seven dollars and a half a share. This, together with the regular dividend, amounts to an annual income of some twelve to sixteen dollars and a half a share. At a price of one hundred and forty dollars to two hundred dollars a share, this is a yield to the foreign insurance company of about $8\frac{1}{2}$ per cent on its investment. The Massachusetts law designates by name as eligible for the investment of the funds of certain types of life insurance companies the bonds of this same corporation and its operating subsidiaries. The bonds of the corporation are now selling at a price which yields only from $4\frac{1}{4}$ to $4\frac{3}{4}$ per cent.

It is no wonder that this foreign insurance company can pay bigger dividends and give more paid-up insurance for the same premiums as those charged by state-chartered companies. Money talks.

State-chartered insurance companies are beginning to demand equality of investment opportunity. And they should have it, not only because they must have it in order to compete on equal terms with foreign companies, but also because it is economically sound that they should have it.

FROM KIMONO TO OVERALLS

The Industrial Transition in Japan

BY MAURICE HOLLAND

I

TRANSITION is the dominant fact of life in present-day Japan. Its centre is industry; but its range extends through social and political life, the press, indeed the entire intricate pattern of existence. And behind this transition is the power of applied science, expressed in energetic industrial research.

Practically all fields of science and most of the essential industries of Japan are being served by one or more institutes of research. As in Germany, such institutes are generally endowed by the State. Of the ninety research institutions listed by the Department of Commerce and Industry, only twenty-one are allied with private concerns. The rest are supported by the national treasury, or by prefectures and municipalities. Appropriations for research from both public and private sources total about \$4,000,000 annually.

I visited Japan as an engineer, anxious to study the influence of research upon her industries. I endeavored to trace the development of industrial methods from their sources and to follow them to their ultimate application. I had made similar studies in England, France, Germany, and Czechoslovakia, and used the same method in Japan. I visited the laboratories of pure science, the birthplace of industrial technology; from these I

went to the laboratories of applied science, and then to the research establishments of trade associations. I completed the cycle by studying in some detail the application of technical knowledge in factories themselves.

Thus I became acquainted with the services which research has performed for Japan's industry, and was able to form an estimate of her present position among the industrial nations of the world.

But the purpose of my study was more than this; the future of an industrial nation rests with those who are responsible for carrying through discoveries in pure science to ultimate application in industry. The persistence, the vigor, and the rapidity with which this work is pursued determine whether a given industry in particular or an industrial nation as a whole is to prosper or to fail. There is, in fact, no surer method of forecasting industrial futures than study of the 'time lag' between a discovery in pure science and the application of the discovery industrially. The investor who seeks to place his money in foreign industries, the financier who is considering a foreign loan, can do no better than to study this time lag. It was with this in mind that I undertook my survey of Japanese industry.

I believe that the reader will best be able to form an opinion of Japan's

industrial future if I reverse the order of my own investigations, and speak first of representative industries, later describing representative laboratories and factories. Perhaps it is natural that the Japanese fisheries should have the first word.

II

I had heard much, before my visit to Japan, of the frugality of the Japanese and of their genius for painstaking detail. Frugality has been forced upon them for centuries; the endless hardships of life for the great mass of the people have required careful conservation of nature's gifts; economy and attention to trifles have become part of the national heritage. The effect of these characteristics upon Japanese industries, particularly those concerned with food and natural resources, I found to be astonishing.

Fish is a most important item of the Japanese diet. It is said that the Japanese eat ten pounds of fish for every pound of meat, while Americans eat ten pounds of meat for every pound of fish. Yet Japanese authorities decided that much of the rice, taro, and other starchy foods so common there must be replaced by still more fish, and that each adult needs twenty-two grams of fish each day instead of the seven grams which are now the rule. So Japan set out a few years ago to triple her fish supply within fifteen years. As a result, the fisheries industry to-day presents a picture which may be compared, for careful attention to minute detail, to a great Japanese tapestry.

Japan is applying scientific knowledge to fisheries more intensively than any other nation. The design of fishing vessels, the preservation of nets, the exploitation of all available waters, including the use of rivers and lakes

for fish and shellfish culture, the complete utilization of the catch, and the methods of marketing, are all receiving systematic study. Automatic machinery such as the Pacific canning factories employ is being introduced increasingly. The entire industry is subject to strict government control, which prevents excessive exploitation.

The Imperial Fisheries Institute, an agency of pure science supported by the Government, holds the commanding position in the industry, furnishing fundamental data and improving technical methods. One of its most important functions is educational. At present no less than three hundred and twenty young men are being trained in the Institute. Courses in theory and work in the laboratories are supplemented by practical experience on training ships. Graduates of these courses become captains of fishing vessels, research workers at experimental stations, designers in shipyards, instructors in the Institute, or employees of private companies.

Branches of the Institute, research laboratories, experimental stations, and hatcheries are operated in and supported by each of the forty-five prefectures of the Empire. The Chitose Hatchery, situated in Hokkaido, is one of the largest in Japan. Here, among the great salmon fisheries, fifty million salmon eggs are handled each year. Although I had seen with what care the Japanese work, and had noted with what infinite pains every phase of the hatcheries operations had been studied, I was surprised to learn that 97 per cent of the salmon eggs were successfully hatched — an achievement which no other country has approached.

At the Institute and its branches investigations are continually being made into the zoölogy, life history, and migrations of various species; the

nutrition value of fish, shellfish, and seaweed; the development of by-products; the improvement of every phase of the industry. The thoroughness of these studies may be judged from a single example. A distinguished Japanese scholar, Dr. Kishinouye, spent ten years of concentrated effort studying every detail in the life and habits of the bonito. At the Pan-Pacific Science Congress I was privileged to hear the results of his ten years' labor summed up in a characteristically modest talk lasting but seven minutes. So well had Dr. Kishinouye learned to know the bonito that he could recognize the offspring of the parent fish wherever found; he could tell just where it had come from and under what peculiar conditions it had lived. This might be compared to knowing the life history of the parents of a child picked up on the streets of New York, through examination of the child's physical characteristics!

Soon after my arrival in Japan, I noticed that a small cylindrical loaf was frequently to be found on the dining table of the Japanese, particularly in homes of the poor. This loaf, I later learned, was made from a fish meal or paste, and was one of the most valuable products developed in the effort to utilize the available fish supply to the last degree. Two grades of the loaf are made. The better grade, Kamoboka, comes from a species which has low market value as fresh fish. It is sold in half cylindrical loaves eight inches long and about two inches thick, weighing half a pound, at a price of about fifteen cents. The inferior grade, known as Chicua, is made from a poorer quality of fish and from scrap. It is pressed into hollow cylinders about seven inches long and an inch in diameter, and is sold at about one and one-half cents a loaf. The importance

of this product in the diet of the laboring classes may be estimated from the fact that in one year a single company made and sold ten million sticks of Chicua.

The entire process of grinding, moulding, and cooking these products by automatic machinery and in accordance with the best practices of mass production was developed by the Hayatoma Fisheries Investigation Association, the closest approach to an applied research agency in the Japanese fishing industry.

About 40 per cent of all the fish now caught in Japanese waters is inedible and used as fertilizer, although an attempt is being made to convert from 20 to 30 per cent into food. With this attempt will probably come greater development of by-products — a field comparatively neglected in the past because of the pressing demands for increased fish supply. The College of Fisheries at the University of Hokkaido has made some investigations in by-products and has developed, among other things, a fish sauce, made from cuttlefish liver, which has found a limited market. Another of its projects has been the manufacture of a moisture-proof shoe from porpoise skin.

The Union Fisheries Company (Kyodogyogyo) is the largest of the commercial companies in Japan, and would bear comparison with any of the great packing houses of Chicago. The Government sanctions the operation of only seventy deep-sea trawlers, and of these this company owns twenty-eight directly and eight through subsidiary companies. These vessels, equipped with Diesel engines and with radio, operate in pairs, making from thirty to fifty hauls on each trip of about two weeks.

The whole area of the fishing grounds where the Kyodogyogyo fleet operates

is blocked off in numbered sections, each sixty-four miles square. Every morning the central office at Shimono-seki telephones to the principal markets in representative cities such as Nagoya, Osaka, Kobe, and Tokyo, to determine the selling price of the principal varieties of fish for that day. The selling prices in the different markets are then broadcast by radio to the captains of the vessels, who in the meantime have reported their exact positions, amount of haul, and kinds of fish to the central office. With the data received from the central office, each captain figures the exact market value of his catch, and proceeds to the port and market which the headquarters has determined are the most profitable. This plan of marketing permits uniform distribution of the catch in accordance with demand, and prevents the breaking of the market price through poor distribution.

This company is experimenting, on a small scale, with the production and marketing of frozen fillets, packed in cans. There appears to be no serious obstacle to the expansion of this enterprise, and it now seems likely that oysters, clams, scallops, swordfish, and halibut will be added to the list of canned products for export to Europe and America. One million pounds of Japanese halibut were imported to the United States last year.

The picture of Japan's fisheries would not be complete without a brief description of the Tokyo Fish Market. In this market, one of the largest in Japan, four thousand dealers are regularly engaged, and fifteen thousand mongers come here daily for their stock in trade; two hundred common species of fish are dealt in regularly; five hundred and thirty tons of fish are handled each day. The market is subsidized by the city of Tokyo, which is now planning a new market

to be built at a cost of five million dollars.

I can think of no better way of expressing the degree of refinement to which technical proficiency has attained in the Japanese fisheries than to say that the employees in hatcheries, marine biological stations, and experimental laboratories have become virtually 'nursemaids to fish.' The hatchery operations are carried out with as much as or more care than is expended on children in some nations. This care is strikingly illustrated in the conduct of the pearl industry.

III

It was in Japan, a few years ago, that a dream as old as science was realized. Professor Nagaoka found the philosophers' stone: in his laboratory at the National Institute of Physical and Chemical Research he transformed mercury into gold. And another dream which has lived for many thousands of years is finding its fulfillment in Japan: the man-aided production of precious gems indistinguishable from those found in nature.

Pearls are being produced in Japan by the million to-day. Technical skill, developed to its highest degree, is taking a hand in one of nature's oldest games of chance. Not content with securing one pearl from a thousand oysters, Japan's experts are obtaining five to six hundred. And the most scientific and astute of gem experts cannot distinguish these pearls from those produced by nature unaided.

Japanese pearl culture is actually the process of helping the oyster, by a delicate surgical operation, to grow a pearl where none grew before. Long the guarded secret of one family, it has now become a million-dollar industry, employing over a thousand men and women. Only in recent years have a

few foreigners been privileged to see the pearl-culture farms. It was my good fortune to be permitted to visit the Gokasho farm as a guest of the House of Mikimoto, and to receive from the son of the founder a fascinating and detailed explanation of the process.

The operation consists essentially of inserting in the mantle of the oyster, between the stomach and the kidney, a perfect sphere of Missouri River mussel shell or seed pearl about three thirty-seconds of an inch in diameter. Upon the skillful execution of this delicate surgical operation the success of pearl culture depends. After the nucleus is inserted the oysters are set on shelves of an iron cage, each shelf containing twenty oysters, and the cage lowered below the surface of the water. In season, four hundred diving girls are employed to clean the oysters and remove foreign marine growth. Twenty or more are employed the year round to keep the cages clean and allow free entrance for water and food.

Mr. Mikimoto's explanation of the origin of the cage, which was invented by his father and is an improvement over the original methods in pearl culture, was interesting. Formerly, he said, the oysters were spread on the bed of the ocean and women divers brought them to the surface in baskets. But parasites, crabs, and other enemies played such havoc with the oysters that a cage was devised to protect them. A further improvement was made by lifting the cages a few feet off the bottom and suspending them from the surface, and after much experiment it was learned that a staggered arrangement of cages in groups at a mean depth of fifteen feet was ideal for the feeding and growth of the oyster.

The Gokasho Bay Station is the largest and most representative of the

eight pearl-culture stations now operated by the Mikimoto Company. Fifty thousand cages, pearl-oyster incubators, are in continuous operation, with an average of one hundred and forty pearl oysters in a cage, making a total of some seven million oysters under cultivation at one time. About a million would normally reach maturity each year, but the loss of oysters before maturity averages 25 to 30 per cent, so that the net yield is about six to seven hundred thousand mature oysters. The life cycle of the oyster is twelve years, and the nucleus of the culture pearl is not inserted until the oyster is four years old, as the young oysters cannot survive the operation. The five or six years after the operation bring the greatest production of pearl essence.

As a memento of my visit Mr. Mikimoto set before me a tub containing about two dozen oysters of sixth-year cultivation. Requested to open the oysters and try my luck, I was rewarded with five beautiful specimens of culture pearls, all perfectly spherical in shape, and with one exception of good color.

The perfection of the culture pearl is astounding. In spite of the efforts of scientists to devise means of finding the difference between culture and natural pearls, whether by chemical analysis, X-ray examination, or other methods, no process in practical use to-day assures positive detection of the culture pearl.

IV

A consideration of the industries of any modern country would be incomplete without some mention of aviation. Civil aviation in Japan, as in many other countries, has not kept pace with military aviation. Although several influential groups have become intensely interested in the conquest of

the air, the general public has not yet accepted aviation with the enthusiasm which is necessary for its persistent development. There has been no Lindbergh in Japan to dramatize flying for the mass of people, polar flights have been far away, and Japan has had no representative in these hazardous expeditions.

Moreover, the initial attempts to operate commercial lines were made with converted military and naval aircraft wholly unfitted for the purpose. Only during the past few years have manufacturers been enabled, through the assurance of a sufficient sale, to undertake the design and construction of planes intended solely for commercial purposes.

The general topography of the islands, presenting hazards of mountains and rice fields to make landings difficult, has also helped to discourage commercial flying. Again, the distances between important centres of population are short, and competition with the established methods of transportation is consequently difficult. Because of these adverse conditions there were in operation at the time of my visit but four established air lines, of which one is experimental.

Yet I found many indications of a growing consciousness in the public mind of the possibilities of aviation. A conspicuous example is the Imperial Flying Association, which, under the leadership of Lieutenant General Nagaoka, has recruited thirty thousand men from all walks of life for the active and popular support of aviation. Since its establishment ten years ago the Association has received a million yen (\$500,000) in subscriptions and donations. The money is largely expended on propaganda work intended to stimulate public interest. The distribution of literature, the posting of cash prizes for aviation contests, the

staging of aerial shows and demonstrations, and the publishing of a journal devoted to aviation are among its activities.

Realizing the importance of providing the initial impetus for the industry and avoiding the mistakes made in aeronautics abroad, the Imperial Government appropriated twelve thousand yen for a comprehensive survey of the problems of domestic and foreign aviation. The Bureau of Civil Aviation is charged with the task of framing a plan for government subsidy of commercial operating companies, and also with the formulation of a national air policy. To assure an adequate supply of trained pilots, the Bureau placed four young men in the Army Aviation School for a nine months' course in ground and flying instruction, graduating them as qualified pilots. Four other men are similarly trained each year with hydroplanes.

V

The silken kimono symbolizes Japan for most of us. Its startling contrasts might symbolize also the Japanese silk industry, for it is an industry of contrasts. Study of the making of silk in Japan leads us at one moment in directions where progress is so rapid that we follow it with difficulty, and the next moment shows us areas where there has been little development for centuries.

It is well to recognize at once that every advance in the silk industry of Japan is of vital concern to us in this country. Ninety per cent of Japan's entire output of silk is exported to the United States. Japan is virtually the production department and the United States the sales department of a great international enterprise. The interdependence of the two nations resulting from their relations in this industry was

well illustrated by a remark which a leading executive of the industry made to me. 'The price of United States Steel Common on the New York Stock Exchange,' he said, 'is infinitely more important to the economic well-being of Japan than the current quotation of the yen by local banks. In fact, one is cause, the other effect.'

The principal emphasis of research in sericulture is on agricultural and biological studies affecting the silkworm and its feeding. The development of time-saving mechanical processes has been retarded by the abundance of cheap labor. If an automatic machine could be invented to replace hand labor in reeling thread it would be such a great forward step in the economy of silk manufacture that it would materially affect the cost of silk lingerie in America.

The process of making the raw silk itself presents a different picture. The research work of the industry is centralized in the Imperial Japanese Sericulture Experiment Station, which has a total annual budget of \$200,000. Six branch stations operate in various parts of the silk-producing regions of Japan. The Experiment Station endeavors to improve the races of silkworms, to facilitate their distribution, and to promote scientific sericulture among the rural population. Its work begins with the breeding of pure races of silkworms, and its departments carry on studies in the chemical composition of mulberry leaves, the parasites of silkworms, the technology of raw-silk manufacture, and methods of classifying from the cocoon stage to actual manufacture.

By its work in the rural districts the Station is doing much to improve the quality of the nation's silk production. The first generation of hybrid silkworm eggs is distributed to farmers free of charge. Nearly seventy thousand silk-

worm-egg cards are also distributed annually by the Station, and special lectures by experts on the processes of reeling and spinning silk are given from time to time in the centres of the industry.

An important phase of the work is the training of filature instructors. Each year twenty-five male and seventy female attendants are given courses of training lasting five months; over fourteen hundred persons have already completed this course. Short lecture courses on the cultivation of mulberry trees and the rearing of silkworms are also given. The Station is housed in modern laboratory buildings, and an important feature is a museum which contains a detailed record of the development of the raw-silk industry both in Japan and abroad.

In an effort to trace the influence of pure research on the methods employed in a representative silk mill, I visited the plant of the Katakura Silk Thread Company. Almost, if not wholly, alone among the manufacturing companies, the Katakura plant supports a research laboratory. Japanese manufacturers have been in close coöperation with the buyers of raw silk in America. Standards and specifications have been established, frequent visits of exchange committees have taken place, and as a result the processes of raw-silk manufacture in the more progressive companies have reached a fairly high state of development, although most of the methods outside of the experimental section of the Katakura plant are of the conventional silk-thread-mill type. In this experimental section, various types of improved reeling machines imported from Italy and other countries are constantly being tested. But as yet no improvement in the sunken-cocoon method of reeling has been introduced.

This method is a notable example of

the excessive use of hand labor. Girl operators, earning an average daily wage of thirty-eight cents, are employed exclusively. In silk mills, as in other industries in Japan, particularly outside the centres of population, the employees work seven days a week, with two days off each month. In the Katakura plant, seven hundred girls are housed in company dormitories, and extensive welfare facilities are provided.

On the whole, the conventional methods of silk manufacture are so firmly entrenched in Japan that only the most progressive companies are making any effort to improve the processes; and, even in these, cheap labor effectively blocks rapid progress. I have discussed the possibilities of the introduction of automatic machinery with experts both in Japan and in the United States, and they agree that the early development of such machinery is unlikely under present conditions.

VI

Nowhere are the peculiar qualities of Japanese character more in evidence than in the laboratory. Here the thoroughness, the genius for detail, and the impelling curiosity of the Japanese find outlet. In no other country does the research worker live so intensely in his work. Despite the Japanese ability for organization, individual genius finds full expression in the laboratory. The complete organization of the American laboratory, in which a thousand men work under a director to accomplish a common end, has no counterpart in Japan.

The most important, the largest, and the best-equipped research institute in Japan is the National Institute of Physical and Chemical Research, which compares favorably with the foremost organizations in the world, such as the

Bureau of Standards, the National Physical Laboratory in England, and the Kaiser Wilhelm Institute in Germany. The National Institute was founded in 1917. Thirteen laboratory buildings are occupied by departments of chemistry, physics, optics, and electrotechnics. Several other buildings are devoted to industrial research laboratories and shops. With a staff of three hundred, including one hundred and twelve actual research workers, the Institute operates on an annual budget of about a half-million dollars.

Although the Institute is subsidized by the Imperial Government, the industries which submit research projects are required to pay the actual cost of investigation or to support fellowships for the specific work. When a patentable discovery results from a research investigation, 50 per cent of the profits realized by industrial application and sale of the product is returned to the Institute, and of this 25 per cent goes to the inventor.

Some of the most remarkable discoveries of modern science have come out of the Institute. In the laboratory of Professor Nagaoka, one of the most eminent physical chemists in Japan, classical investigations in the structure of matter are always in progress. I have already mentioned one of Professor Nagaoka's most brilliant achievements, the transmutation of mercury into gold on a laboratory scale.

The present keen interest of medical science and even of the general public in vitamins is not by any means confined to the Occident. In the applied industrial research laboratories of the Institute, the manufacture of vitamin A cod-liver-oil capsules has been carried to the point of commercial-scale production. Experiments are in progress also for extracting the valuable item of diet, vitamin C, from Japan green tea.

A synthetic indigo, reported to be as good as dyes produced by similar processes in Germany, is another product of the laboratories. One section of the chemical research laboratory is devoting much attention to the development of pure chemical derivatives from human hair. Of thirty or more derivatives already developed, one offers the possibility of a specific cure for tuberculosis.

One of the most important and extensive of the national laboratories supported by the Government is the Imperial Combustibles Research Laboratory — another result of Japan's determination to utilize to the highest degree her natural resources. As one engineer expressed it, 'Japan's limited coal supply makes it imperative for us to develop scientific methods for obtaining every atom of energy from our available supply.'

This laboratory is divided into several sections, which are specifically charged with the exact determination of the nature and structure of coal, the development of low-temperature carbonizing processes, the development of coal derivatives, the utilization of brown coal, and the extraction of oil from shale. The work of the Institute is important not to Japan alone, but to the entire world. American and European engineers who have followed the laboratory's work agree that Japan is gaining world leadership in the field, and that in the future other countries will look to the East for knowledge of combustibles. While other countries may be more richly endowed with natural resources, nowhere is the supply of such resources infinite; and their conservation is each year becoming a matter of greater importance. I am sure that Japan's attitude toward her natural resources might well be emulated by many other nations.

Research is being applied even to

art in Japan, and an old order, established through thousands of years, is changing. The pottery industry, including the famous Satsuma ware, still largely depends upon trade secrets handed down through families from generation to generation. But the Government, through the Pottery Experimental Station at Kyoto, is introducing scientific study into the industry, and attempting to create a more coöperative spirit.

I was surprised to find that the work of the Experimental Station was being directed largely toward the production of original designs for pottery. To an American, design might seem the proper province of free imagination; yet science is being successfully applied to it. Extensive and minute studies are made of bamboo, cherry, chrysanthemum, to find in them new motifs for design. A table lamp originated in the laboratory is fashioned after a miniature bamboo tree, and the finest details of color, form, and texture are reproduced. The lamp is both artistic and useful, and can be made at reasonable cost.

The laboratory also concerns itself with the improvement of pottery machinery, the reduction of material costs, and the development of new applications for pottery. Its findings are not patentable, and can be used without payment by any concern in the industry. An extensive museum containing pottery from all parts of the world is maintained by the Station.

VII

Among the representative industrial plants which I studied was the Oji Paper Company. Although the principal product of this company is newsprint paper, the Oji Company and its subsidiary plants manufacture practically all types of paper, including

stationery, wall paper, and cigarette paper.

The company's mills operate continuously, seven days a week, the employees, as in the silk mills, receiving two days off each month. The mill operates on two shifts, day and night, one beginning at six in the morning, the other at six in the evening. The average wage for men is \$1.05 a day; for women, \$.75 a day. The company maintains a housing system, supply stores, and free baths for its employees.

The plant itself, following the best American practices of mass production, is well equipped with automatic and semiautomatic machinery; a noticeable feature, however, particularly in the presence of many hazardous operations, is the complete absence of any safety devices. An interesting commentary on the equipment of Japanese industrial plants, which seems to be an indication of the trend of the times, is the gradual replacement of English by American machinery.

The Nippon Electric Company presents many contrasts to the paper mill. I learned from Mr. Ohata, the operating vice president, that 'a gradual displacement of foreign engineers is continually in progress, an increasing number of engineering graduates from the imperial universities stepping into their places, and gradually taking over the technical administration of the basic industries of Japan.' This is happening rapidly in the Nippon Electric Company.

Its employees are, in general, of a much higher type than those in the paper mill, and receive an average wage of from \$2.25 to \$2.50 per day. The wages of toolmakers run as high as \$3.50 per day. Seventy men are employed in engineering design and drafting, and a small section of twenty men engages in experiment, principally

with broadcasting equipment and loud speakers.

VIII

The inherent weakness of the organization of research in Japan is the gap between the agencies of pure research and those of applied science operating in the industries.

One reason for this is that a too generous subsidy has been extended by the Imperial Government to national research institutes, and in some instances to agencies which should manifestly be supported by industry itself. The incentive for the establishment of private agencies, which would have resulted naturally from industrial competition, has suffered from government regulation of industry. Officials seem to realize that the ideal to be attained is a gradual reduction of government subsidies and the establishment of research organizations on a self-sustaining basis, but no concerted effort toward this ideal is in evidence. The Japanese executive does not respond to the idea of research. He is intent upon production and dividends.

Until recently, also, Japan suffered from industrial indigestion, brought about by successive attempts to bolt German, English, French, and American methods, advisors, and products, often wholly unsuited to her own special economic needs. Now Japan has outgrown her dependence on imported technical knowledge, which is rapidly being supplied by her own people. Thirty thousand engineers are enrolled in the national engineering societies of Japan — a fact suggesting in itself the phenomenal industrial growth which has been able to absorb so large a number of technical workers.

It is readily apparent that Japan's universities and technical schools are

far too remote from the interests of her industries. At present there is practically no coöperation between the engineering school and the factory, a situation unfortunate not only because the university laboratory is not rendering to industry the direct assistance which it is capable of giving, but also because the universities are turning over to industry engineering graduates without any grasp of industrial needs or conditions. From a practical point of view, their training is deficient, and industry must take over at its own expense, and with resultant loss of efficiency, the task left uncompleted by the university.

What is especially needed is some national agency to act as a clearing house, a bridge to span the gap between pure science and industry. This seems an obvious function of the National Research Council of Japan. Some discussion of this project during my visit may result in its being undertaken. A national agency to interpret the technical problems of industry to pure research, and to influence the programme of scientific research in such a direction as to be helpful to industry, would be of vital importance.

But whatever the defects in the organization of industry and science in Japan, the advances in recent years have been truly phenomenal. In the last analysis, these advances are due to the native Japanese ability, and to the outstanding characteristic of the intelligent Japanese, which is, if my observation be true, an inquiring mind and a hunger for knowledge. No opportunity is lost by any Japanese in any station of life to come in contact with foreigners and to acquire as much new knowledge as he can. The Japanese take great care to make a detailed record of newly acquired information, and lose little time in its application.

From my own observations and from the comparative data available, I should place Japan fourth among the nations of the world in the organization and scope of her research activities. I should rate Germany first, the United States second, England third, and Japan fourth. I will hazard the prophecy that within ten years two important changes in relative position will take place in this list of the Big Four in the international contest for industrial supremacy.

THE CONTRIBUTORS' CLUB

MILESTONES

I. The Sculptor

I HAD never before looked upon a dead person's face, and it was certainly not by my own volition that I did so now. Little, wide-eyed, frightened girl that I was, I had been swept out of my seat and down the narrow aisle by a heedless crowd. Begging and pleading with deaf grown-ups, I tried to worm my way to freedom, but the relentless tide swept me on and on. I could see the black, shiny coffin yawning before me, and my sobs became hysterical as we drew nearer and nearer. Only a few more feet to go — I covered my face with my hands lest I should see within before I knew. The heavy sweetness of lilies seemed choking me, and the monotonous grief of the crowd drummed in my ears while their steady, onward shuffle beat about me.

Suddenly there was a quick, restless movement and I felt myself tossed like an unwilling leaf in the current, and then crushed against a hard, smooth surface. For a moment I stood stunned. Then the full horror of the situation came to me — I was standing close against the coffin, with my chin a little above its edge. All my childish fancy seemed to concentrate in one thought: dead eyes were staring at me! — dead eyes boring between my trembling fingers into my very soul!

Finally I could stand it no longer, and, tearing my hands from my face, I gazed full into that of the dead.

For a moment what I saw stupefied me. I could only dumbly stare. Then such a wave of glad relief swept over

me that I began to cry afresh with pure joy. Before me lay the sweetest face that I have ever seen. Wrinkled and ivory-white and framed by silvery hair, it was yet strangely young. There was beauty in every feature of it, but that was not so much what attracted me. It was the look of deep peace and contentment. Small as I was, I felt that, somehow, if death could do that to a face I need have no fear.

II. 'Destroyer and Preserver'

'Beat you to the playhouse!' I called as I swung my loaded bookstrap on to the porch and sped around the house.

'Naw, yuh don't!' cried Sarah, tossing her sweater beside my strap and dashing after me. Because she was older and had longer legs, her yellow braids were soon bobbing far ahead. Seeing that I could not win, I turned to wait for slow little Marie. Hand in hand we ran down the garden path, through the gate and on through the pasture to the oak tree, beneath which our playhouse stood.

It was just an old shed which Father had made waterproof and had papered with odds and ends of pink bedroom paper. Here we carried all our treasures — broken dishes, a faded parlor rug, some torn lace curtains, an old carved clock, and an ancient settee. And here we spent our joyous hours of freedom.

This evening, as we panted up, Sarah met us at the door. She put her finger on her lips. There was news in her very look. 'Marie,' she whispered, 'yer sister's in here.' Marie only

stared. 'Come on in, silly. She's sick. She wants yuh to go tell yer maw.'

Wide-eyed and frightened, Marie tiptoed in. I watched from the door. Her sister Jane, covered with an old shawl, was lying on the settee. Jane was much older than we, but though she never played with us I knew her well. Her pretty face was quite pale now, and there was mingled fear and pain in the dark eyes. 'Marie,' she moaned, 'go tell Mother to come.'

Dumbly, too frightened to stay, I followed my playmate back the way we had come and on down the street to her home.

'Come, Mother, Jane's sick — down in our playhouse,' cried Marie.

'What?' There was a roar from inside the house, and Mr. Allen appeared, brandishing his paper and cursing vilely. 'I told you so. D—— her! She can get out of my house!'

'No, no, John. It is n't so,' sobbed the mother. 'Hush, dear, the neighbors will hear you.' Her nervous hands fumbled as she put on her bonnet and prepared to go to her child.

I fled from the house, too terrified to hear more. In the middle of the street I was stopped by Sarah. 'Ain't it fierce how the old man takes on?' she gossiped. 'Jane's awful sick. Should n't wonder if she'll die.'

'Oh, Sarah, what's the matter with her?' I gasped. 'What makes Mr. Allen carry on so?'

'Cause, silly,' Sarah swelled with superior wisdom, and leaned over to blurt impressively in my ear, 'cause — she's — going — to — have — a — baby!'

'Why, why — that's nice, is n't it?' I faltered.

'Huh? Nice? Well, if you ain't a little innocent!' She stared at me scornfully. 'Of course it ain't. It's awful. I know my maw'll say I can't ever play with Marie again, and I

don't want to, neither!' She tossed her head self-righteously. And then, seeing the perfect bewilderment of my face and being desirous of a more intelligent audience, she gave me a good-natured shove. 'Aw, silly, go ask yer maw,' she said.

But I did not ask my mother. Instead I locked this new secret in my heart and brooded in silence. I saw the neighbors nodding their heads together and casting significant glances. I knew that shamed little Marie no longer played with us. I knew that her father cursed more frequently and that her mother's eyes were always sad. And my only clue to all this misery was that a baby had come to Jane. Babies were awful!

One morning, some time later, I awoke to find my father tickling my ear. He wore his usual workday clothes, but on his face was a broad holiday grin. 'Get up, Big Sister,' he said, as he lifted me in his arms. 'I've got something to show you.' Softly he tiptoed downstairs and into a darkened room. Dimly I could see my mother lying asleep in bed. But Father slipped around to the other side and lifted the covers. 'See, Big Sister,' he whispered, 'Mother has a brand-new baby boy!'

Terror gripped my heart. Desperately I wrenched myself from his arms and fled silently up the stairs. Far, far back in the clothespress I fled with this new terror. 'A baby — in our own home!' I gripped my arms about my knees and sat staring into the darkness for what seemed hours. Then at last came the relief of tears. Finally, spent with the violence of my sobbing, I leaned back dully.

It was almost noon when Sarah finally pulled me from my refuge and marched me down the stairs. 'Ain't y' ashamed?' she scolded. 'Yuh ought to be proud to have a darling new

brother, 'stead of cryin'. Gwan in and make love to him now. Yer maw's worried 'bout yuh.'

Some neighbor women were standing at the foot of the stairs, and as I stole past I heard one say, 'I'm so glad fer Mrs. Huston. Ain't it a fine big baby?'

Why, people were glad about this baby! Sarah did not shun me. The neighbors even came to see us. And I remembered Father's happy smile. Some way this baby was different.

Silently I slipped into Mother's room, and lingered just inside the door. Mother saw and beckoned me to her side. Without a word she lifted the covers—and there lay my tiny red-faced brother. Ugly, wrinkled, but very innocent and harmless he looked. Finally I ventured to touch a wee hand and smiled shyly as his fist caught around my finger. Then I must touch his feet and his fuzzy bit of hair. At last I laid my cheek very softly against his and smiled up at Mother. And Mother smiled very sweetly back at me.

Soon afterward Mother quieted forever the fears that had grown in my heart, and taught me the true beauty of birth and love.

III. *'Canst Thou by Searching Find Out God?'*

Because no breath of air must disturb the fragile, growing threads, every window was closed in the spinning room of the great Woolen Mills. The glare of a midsummer sun filled the dust-laden air with a strange white light. Heated machinery moved with slow, inhuman strokes, and demanded instant attention to its every whim. Somewhere a high shrill scream told that a woman had fainted, but the unheeding wheels ground on and on. A clock in the room struck three—the afternoon was half over.

I paused for a moment in my endless running to untangle a bobbin, and took the opportunity to chat with 'Jude' at the next machine. 'Only two more hours, Jude,' I called, 'then I shall be free, *free*, FREE forever!' I waved the bobbin exultingly, careless of boss and floorwalker.

'Gawd, kid, yer lucky,' shouted Jude huskily above the roar of the room. Jude had 'T.B.' and always spoke with an effort. 'I'm glad fer yuh, though, I swear I am. Wish't it was me, I do!'

'I do too, Jude,' I said, penitent that I had flaunted my joy before one who could not share it. 'This place is terrible, is n't it?'

'It's hell! Gawd, I'd rather die than work like this. Sometimes I used t' pray t' die.' Then she laughed grimly. 'Pray? Ha! kid, I learned long ago there ain't no Gawd t' pray to.'

Then we were back at our machines, working, running, slaving. But Jude's words throbbed in my head, beat to the rhythm of the machines, blazed in the air before me. No God? No God!

Suddenly I knew Jude was right. There was no God.

It was the end of a summer in which burning hands and feet, a throbbing head, and an aching back had taught me the bitterness of man's struggle for bread; a summer in which the empty, degraded lives of my fellow workers had mocked and taunted my finest ideals of life; a summer in which childish faith had struggled with grim reality. Again and again I had asked, 'How can God let the world be like this?'

And now I knew the answer. There was a fierce kind of satisfaction in knowing, a kind of self-sufficient strength. I too laughed harshly as I repeated the words, 'There is no God. There is no God.'

Four years have passed since then, four years of happy college life. I knew as I accepted my pay check on that last afternoon that I had earned my way to the beginning of a college course. I was free!

It would be so easy, now that I myself am happy and time has eased memory's burden, to accept a gracious God who cares for me and to think that all is well. I waver, and almost believe.

And yet — and yet — what of those others? Have their lives changed? No, it was their pain which taught my unbelief, and only through the answer of their lives can I build anew.

But I am not altogether without hope. Life has three great questions which she must answer to her children — Birth, Death, and God. She taught me the truth of the first two and I no longer feared. Some day she will answer this last, the greatest of all. And I know that in the fullness of truth I shall again be joyous and free.

A ROADSIDE STATISTICIAN

THE road wound through a bit of woodland and climbed a steep hill. For some time I had been doubtful as to the result. The road seemed meandering and aimless. It lacked that appearance of sturdy determination which characterizes a road that knows its destiny and proceeds unfalteringly to it.

When we reached the top of the hill I saw a glaring sign which announced in letters a foot high, 'This road does not go to Pottstown.' I stopped and read the sign carefully. There was no mistaking its import. The statement was brief and to the point, and yet I doubted. If it did not go to Pottstown, where could it go? I felt an impulse to push on in the hope that some happy chance would prove the sign wrong and my intuitions correct. The back seat

was frankly skeptical and recommended going ahead on the ground, reasonable enough it seemed to me, that it must go somewhere — if not to Pottstown, then to some other equally attractive spot.

Still hesitating, I looked about me, and saw a tiny cottage by the side of the road. On a shabby little verandah there sat an elderly man who was watching us with evident interest. I determined to overcome my masculine disinclination to ask questions and, extricating myself from the embrace of the steering wheel, approached him. As I mounted the uncertain steps he rose and greeted me politely. He offered me the only other chair and, as I took it, settled himself with the air of a man about to engage in a long and confidential chat with an intimate friend. He quite ignored my impatient companions in the waiting car.

'Permit me to congratulate you,' he said by way of introduction.

'You are very kind, but why am I to be congratulated?' I asked.

'Because you are of the elect. You saw the sign, stopped and read it, and have come to me for information.'

'But what is so remarkable about that?' I inquired.

'That sign has been there for three years. I put it there because there is a troublesome turn in the village below that brings many travelers up here. This road ends in a sand pit a mile from here. It is a difficult place to turn a car, and this bit of open space in front of my house permits mistaken travelers to turn and retrace their steps.'

I noticed his punctilious use of the word 'travelers' and his polite avoidance of the abhorred word 'tourist.' I noticed too his unusual appearance. Clad in the roughest of clothing, he was clean-shaven and his sunburned face had the sensitiveness of the scholar. His hands, worn with labor, were delicately shaped and well cared for.

'I first put the sign up,' he continued, 'as a service to travelers, but it has proved a source of great interest to me as well. I have compiled some rather interesting statistics. I should like to discuss them with you.'

He rose and went into the house, to return shortly with a small leather-bound book. During his absence I called the rest of the party to join us, as I felt sure they would be rewarded.

Giving his chair to the lady of our party, he balanced himself on the verandah rail and opened the book. With the air of a professor of philosophy he resumed his discussion.

'As I said, this sign has been in place for three years. The period covered is from April to November of each year. During the first year I was visited by 290 travelers. Of this number 235 ignored the sign and went on to the sand pit. Of the remaining 55 less than half retraced their steps without inquiry. The second year 360 came and 292 were uncertain as to the meaning of the sign and went ahead. The third year I had 410 visitors and 332 regarded the sign as unimportant and went on to the end of the road. I repaint the sign every year, that it may look precisely the same and so avoid any variation in conditions. If you care to figure it out you will find that almost exactly 81 per cent of my visitors over a period of three years have had precisely the same reactions to the sign. The only variation is seasonable. In August of each year, what I call the "non-responding" reach as high as 87 per cent, and in October the figure has fallen as low as 70 per cent. Now I wonder what it means; the uniformity of the percentages cannot be accidental. Have you a theory?' he asked, turning to me.

I ignored the question. My mind was busy with another inviting line of speculation.

'Have you noticed any difference in the reactions of men and women?' I asked.

'Yes,' he answered, and turned to a table of figures in the back of the book. 'Of the parties composed entirely of women, 93 per cent ignore the sign completely.'

'That,' I commented, 'is the intuitive sense.' He ignored the interruption.

'Of the parties composed entirely of men, 25 per cent turn back. The uncertainty in my mind as I sit here is in regard to the parties composed of both men and women. I can never tell what the result will be. They may follow the feminine percentage and push on, or they may tend to the masculine table and stop, or at least make inquiries. I was speculating on what would happen when I saw you coming.'

The lady in our party was becoming restless.

'But,' she said, 'I do not understand. Men are so stupid, and so reluctant to ask questions.'

'You are quite right,' our host responded. 'Of all questions asked, 97 per cent are asked by the women. I fancy they have more facility with the direct phrase.'

He closed his book. 'It is all very baffling,' he said. 'I shall hope to have more significant figures as the years go by.'

We took our way back to the valley. I was preoccupied. Eighty-one per cent — what did it mean? Had the roadside statistician stumbled upon something that the educational experts are fumbling for? I did not know; I do not know now. We passed many intricate and uncertain corners where, in the fading light, I deciphered the messages on signposts. On two occasions, unprompted, I asked questions, with the most careful attention to the niceties of the direct phrase.

The back seat was strangely silent.

A GEORGIA PEACH

THE Belles of Georgia were *passées*. But there still remained those too ripe for shipment. And if you have never eaten a rejected Belle of Georgia in the orchard, you have never eaten a peach! But we saw that they were picking the Elbertas; so we pushed Sisypheus, our Chinese wheelbarrow, up the mountain, and stopped before the caretaker's cabin to ask for work. Not that we especially desired work; but we desired peaches in such quantity, and for so long a period, that work seemed the best way to acquire them.

The caretaker's dog, disregarding our beloved mongrel's pathetic friendliness, and utterly ignoring the usual sign of amity, growled an insulting remark about our appearance, which John, our dog, resented. The pickers were passing from their day's work, and we were at once divided into conscientious objectors and jingoes. Peter seized John by the tail, the caretaker seized his dog in a like manner, and there was an enforced armistice. It seemed an inauspicious moment in which to ask for work, but we did. The mountaineer grinned, and said: 'The fo'emman, he's gone ter town, but you-all kin move inter the shack next mine, and I reckon he'll take you-all on in the mornin'. Ever pick er pack?'

Peter replied that we were experienced, as indeed we are. For Peter has experienced the orange industry, and I have paid off several installments of my karma owning and operating alone a large commercial apple orchard wished on me in the Middle West.

So we borrowed a broom, put John on his chain, and pushed Sis into the cabin, where in the rock fireplace the kettle boiled cheerfully before nightfall.

The next morning at sunrise we climbed the steep rocky path to the packing shed. The great, clean, open

pavilion sat on the very pinnacle of the mountain, overlooking one hundred acres of peach trees *en talus*, each rocky terrace just wide enough for a footing below its row of trees. On every side the sun glinted on blue billows of distant mountains, their summits gleaming with rainbow mists forever dissolving in the serene air. Spring comes late up this way, and in a few short weeks works, with tremendous fervor, her creative will. And early the drowsy earth croons her summer song of enchantment and tranced calm. We sat before a packing table, and in the brooding quiet listened expectantly for the pipe of a shepherd on a hillside.

Suddenly Peter glared at me with an anxious eye. 'Those Elbertas!' he cried. 'They are not colored. They are picking too green!' And he hurried down to inspect the fruit. I was not moved to vicarious anxiety, and remained to reflect that after all these weeks of idle wandering along the open road, like happy gypsies of an older day, we had deliberately turned aside into this disquieting avenue of trade.

Peter returned with his worst fears confirmed. But I gently reminded him that this orchard was not ours, and invited him to watch the workers who were assembling. For there entered a *grande dame* with a regal air, followed by other grandes dames equally queenly. A bevy of girls in gowns of blue, and gold, and pink, and lavender, with little aprons daintily embroidered, flitted in like butterflies, followed by slim youths in clean blouses, with old-fashioned faces like Civil War daguerreotypes. The grandes dames sat in comfortable corners and opened books or magazines. Someone played a fox trot on a harmonica, and presently the young people were dancing. They danced happily, with grace and decorum, and it was a sweet sight in the summer morning.

'No poor whites here,' said Peter. 'These are the old-time aristocrats, eaten out by the boll weevil. I'm glad I'm not the fo'eman!'

The foreman appeared. He was a plump, blonde, pompous young man, and I fancied these people called him a Yankee. For at once the dancing stopped, and an air almost of sullenness settled upon us. Peter was hired as a picker, but I hesitated and did not apply, though I am rather an expert packer. But without, under the trees, there were too many conferences, with some show of unpleasantness, between the owner and the buyer, and the foreman seemed irritated and confused. At noon Peter told me he had at once discovered the trouble. The brown rot had suddenly developed, and the owner was forcing green peaches on the buyer, in the hope of saving his crop. The poor foreman was at his wit's end, attempting to teach these experienced pickers to pick green, and to force the packers to make a dishonest pack. His attempts at pleasantry, in his crisp Northern voice, were met with respectful silence, and his sharp reprimands with quiet scorn.

I sat near the foreman's desk, and heard him say to a youth who arrived late, 'We're picking as green as we can to-day,' and he gave him a sample peach to carry. It was very green indeed. When this particular youth returned with his basket, the buyer happened in, and both he and the foreman stepped quickly to examine the fruit. Before the buyer could speak, the foreman cried, 'What do you mean by picking green peaches! Ain't you got no sense! Take these out to the culls!' The young man produced his sample peach. 'Your own sample that you gave me to pick by,' he said. 'It's no such thing!' yelled the foreman. 'What are you talking about?' and he seized the peach and threw it outside.

The youth's face turned as white as death, and every woman stopped packing. But he said in a controlled voice, 'My time, if you please.'

'You bet you can have your time, and anybody else can that don't pick honest!' And he went to his desk, where he was a long time making out the check, for every packer arose and walked to the trembling youth.

'Aunt Louise,' he said firmly, 'take the girls and go back to work. You too, Cousin Carrie — all of you. This is my affair. Just business, you know.' He accepted his check with a bow, and the foreman scrawled on the signboard:—

I am the foreman of this orchard and no back talk aloud — Harry Watson.

The pickers filed by the sign with lowered eyes; only Peter laughed.

That evening, in the village, a young man challenged the foreman to fight. He refused, and was gently spanked before an admiring audience. (No doubt Uncle Jeff or Cousin Lee remitted the fine; for all these people seem related.) The next day there was another foreman. No doubt the Northern foreman returned with vivid tales of the lawless South. The new foreman was a Southerner, less efficient, but with the leisurely executive ability that somehow gets things done. The Southerner knows what to slight — and the one to slight! Still, with every truckload starting to the railway, there was bickering between the owner and the buyer. I was sorry for the owner, who stood to lose his crop. And, after all, a peach is considered ripe when it splits from the seed, and these did. But flavor comes with color on the tree. The orange grower openly gasses his fruit for color, and the apple orchardist trusts the apples to color in the box or barrel. They may. But the consumer misses the delicate flavor.

THE CONTRIBUTORS' COLUMN

'DURING recent years,' writes **William B. Munro**, professor of government at Harvard, 'I have been a college professor during half the year and a college trustee the other half. In both capacities I hear very little discussion of anything except the urgent need for more money and the ways of getting it.' In other words, when such a man attacks the subject of financing higher education, he knows whereof he speaks. **Robert Dean Frisbie** continues his South Sea Island chronicle, describing his experiences as the only white man on an atoll full of natives. **The Right Reverend Charles Fiske**, whose article in the June *Atlantic*, 'A Bishop Looks at the Church,' aroused widespread interest, follows up his criticism with a constructive defense and frank confession of faith in the Church. The Bishop's book of last year, *The Christ We Know*, is being followed this fall by a collection of essays entitled *The Confessions of a Puzzled Parson*.

Two more sonnets by **R. S.** maintain the same extraordinarily high poetic level that he reached in our last issue. Δ Talented daughter of a distinguished father, **Margaret Munsterberg** works in the editorial room of the Boston Public Library. Δ Our mania for giving prizes receives short shrift from **Miss Repplier**, who buttresses her case with many adroit quotations. Δ It is one of the satisfying ironies of life to find in **Paul Shorey**, first of American humanists, the most effective defender of William Jennings Bryan. Evolution has been enjoying such a consistently good press that it is a pleasure to hear from a gentleman and a scholar who finds Plato more satisfying than Darwin. **Samuel Scoville, Jr.**, lawyer and nature lover, gives a description of his recent adventures in southern Georgia and northern Florida that sends a tickle along the spine. **Robert Hillier's** seventh book of verse, appropriately entitled *The Seventh Hill*, appeared this spring.

Readers of 'The Sea Boy' will find no difficulty in believing **Captain William Outerson's** statement that his life has been 'varied and intensely interesting.' Born in Edinburgh in 1875, he left school at fourteen and shipped on a four-masted barque from Liverpool to Calcutta and back. Six months in a law office in the Scotch capital were followed by a voyage to San Francisco, round the Horn. Most of the next ten years was spent in the United States, in whose navy the young man enlisted during the Spanish War. Then came more education, a little journalism, and globe-trotting, from Alaska to the Orient. The Great War naturally attracted this adventurous spirit and he received a commission in the Black Watch, with which he served in India until 1920, when he retired with a captain's commission. A young Outerson is already following in his father's footsteps, having entered the Naval Academy at Annapolis. Δ The second and concluding installment of **Hilda Wetherill's** letters from an Indian trading post shows how the redskin meets such great emergencies as war and illness. Δ All the way from Italy come **Bernice Kenyon's** verses on a theme that has always exercised a peculiar fascination over the poetic mind.

As a lecturer in astrophysics at McGill University, **Professor A. Vibert Douglas** is qualified to discuss the energy of starlight and even to draw the surprising conclusion that we are such stuff as stars are made on. **Vincent C. Bonnländer**, a New Jersey clergyman, offers an appealing reconciliation between Nature and Man. Δ As military correspondent of the *London Daily Telegraph*, **Captain B. H. Liddell Hart** enjoys a distinguished reputation as an expert on the science and history of warfare. His studies have ranged from classical times down to the Great War, and several of his books on military subjects have appeared in this country.

After graduating from Vanderbilt University and taking a master's and a doctor's degree at Yale, **Howard Douglas Dozier** became head of the School of Commerce at the University of Georgia and later professor of economics at Dartmouth. He is now serving in an advisory capacity to one of the government departments at Washington. Purists who may take offense at his title of 'Hamstringing Insurance' are referred to a distinguished authority. 'So have they,' wrote John Milton, 'hamstrung the valor of the subject.' **Maurice Holland** is Director of the Division of Engineering and Industrial Research of the National Research Council. His investigations of scientific research methods abroad have taken him to many foreign countries, including Japan, which he visited in 1926 as a delegate to the Pan-Pacific Science Congress. Although some of the material in his present article is drawn from the report he made to the National Research Council and some from a privately printed brochure, *Out of Kimono into Overalls*, most of the substance and all of the form are entirely new.

It had been the *Atlantic's* intention to invite an immediate reply to Mr. Scharff's interesting discussion of public utilities, but, since the Federal Trade Commission is at the moment actively investigating power companies throughout the country, the natural spokesmen for the industry feel that they should not be called on to reply to charges or even comment upon suggestions until the government report is made and published.

We are indebted to Mrs. Marion G. Hartness, of Green Mountain Falls, Colorado, for the following Korean proverbs she assembled on a recent trip to that part of the world and passed on to us apropos of our little papers on Chinese Proverbs:—

Spare the tile and let the main beam rot.

Why put jewels on straw shoes? Straw shoes should have strings of their own kind.

Even three pecks of gems are not gems until strung on a string.

Horseshoes for the feet of a dog!

However pressed you may be for time, you

must thread the needle through the eye, not tie it round the middle.

Even a tiger, if he is spoken of, appears.

Like putting fresh meat in a tiger's mouth.

Trying to drive an ox through a rat hole.

What you tell a cow is kept a secret; what you tell your wife is published abroad.

A daughter-in-law grows up to be a mother-in-law and acts the mother-in-law in even worse measure.

Even a state cannot relieve its own poor.

Gifts to the king may be strung on a string, but the bribes that go with it must be carried by a horse.

Even a sheet of paper is lighter when lifted by two.

A witch cannot do her own exorcising, nor a sorcerer foretell the day of his own death.

One must go up to Heaven if he would pick stars.

Like a white crane flying across a black cloud.

Water may be known a thousand fathoms deep, but a single fathom of a man's heart it is impossible to know.

Christian counsel for campaigners.

BEAUMONT, TEXAS

DEAR ATLANTIC, —

In Mr. George Wharton Pepper's fine paper, 'From Nadir to Zenith,' in the *Atlantic Monthly* for August 1928, is this admirable statement, which should be constantly borne in mind by all men, including us Protestants, and particularly during this Presidential campaign: 'As far as belief is concerned, there are fixed stars in the Christian firmament. . . . Around these are clustered many bright but lesser stars by which devout Catholics, Protestants, and Roman Catholics alike steer their course. These are the high lights of the Christian tradition.'

A list, reasonably complete, of those 'fixed stars' was given one hundred years ago by Charles Butler, a devout Roman Catholic, an eminent English lawyer, an author of distinction on legal and religious subjects, in his *Reminiscences*, published in 1822.

In that book he says: 'Eleven articles of religious belief, in which all denominations of Christians believe, are:—

'(1) That there is one God.

'(2) That He is a Being of infinite perfection.

'(3) That He directs all things by His Providence.

'(4) That it is our duty to love Him with all our hearts and our neighbors as ourselves.

'(5) That it is our duty to repent of the sins we commit.

'(6) That He pardons the truly repentant.

'(7) That there is a future state of rewards and

punishment, when all mankind shall be judged according to their works.

'(8) That He sent His Son into the world to be its Saviour, the author of eternal salvation to all who obey Him.

'(9) That He is the true Messiah.

'(10) That He taught, worked miracles, suffered, died, and rose again, as is related in the four Gospels.

'(11) That He will hereafter make a second appearance on the earth, raise all mankind from the dead, judge the world in righteousness, bestow eternal life on the virtuous, and punish the workers of iniquity.'

F. D. MINOR

Llewellyn White's remark in these columns that he does not 'relish the Roman Catholic theory that the end justifies the means' brings us this account of two European trials in which the usual indictment leveled against the Jesuits enjoyed its day in court.

Some three years ago in Norway legislation was proposed abolishing the proscriptive laws against the order of the Jesuits. This caused a good deal of an uproar, in the course of which a lady, Mrs. Martha Steinsvik, filled the press with fervent denunciations of the order. A certain Father Reisterers, a Catholic parish priest at Christiansand, severely criticized the lady's assertions and published a lengthy confutation thereof, couched in vigorous language. The lady was grievously offended and brought suit against the priest in the civil tribunal. This tribunal held a hearing several days in length on the whole question, and on January 18, last, acquitted the priest, awarding costs against the lady.

The affair took very much the same course at Budapest. Curiously enough the two cases were almost synchronous. One Desiderius Polonyi published in a Budapest journal a series of attacks similar to those published by the Norwegian lady. These were answered by a certain Julius Czapik, professor of theology and editor in chief of the Catholic review, *Magyar Kultura*. The professor publicly charged Polonyi as a calumniator, whereupon Polonyi brought suit against the professor. The court, recognizing the nature of the case, constituted a special jury of competent persons with instructions to go to the bottom of the charges. Each side appointed two experts to deal with the case. The hearing lasted three weeks, and ended with a verdict in favor of Professor Czapik, giving him damages of one hundred pengos and, in addition, awarding costs of one thousand pengos against Polonyi.

I have the main portion of the text of the court's decision before me, which is somewhat

too long to quote here. Suffice it to say that it is sweeping in its condemnation of Polonyi. I quote the concluding sentence, which runs:—

'Wherefore the court believes it its duty to declare that the charges brought to proof have been shown not to correspond with the truth; that the above cited maxim is not a doctrine of the Jesuits; that the charge brought against the Society is a calumny and its maker is a calumniator; the plaintiff having been guilty of calumny, the defendant had full right to call him a calumniator.'

Can it be that transfer of the indictment from the Jesuits to the Church as a whole results from a conviction that, as it is no longer possible to sustain it against the former, it might be as well to try it against the latter?

I never cease to marvel at the lack of scholarship, of logic, and, I regret to say, not infrequently of good manners, displayed by interveners in this particular matter. Nor have I the slightest hope that the two judicial decisions to which I have referred will have the least effect upon the minds of Mr. White and those who share his general point of view on these matters.

THOMAS F. WOODLOCK

Mr. Moore Bennett's strictures on certain Protestant missionaries in China, which appeared in our August issue, called forth a number of rejoinders. The following letter expresses a point of view generally held.

DEAR ATLANTIC, —

Concerning Mr. Bennett's article, 'Christianity in China,' it was my rich fortune to be a guest at one of the Catholic institutions which he praised, or might have praised. My memory of the industrious, sacrificial lives of the Brothers, of the secluded, prayer-pervaded atmosphere of their monastery (fifteenth-century Europe in a roadless nook of fifteenth-century China), constitutes an ever-green oasis in my thoughts. High praise to these Catholics, and also to those other missionaries, both Catholic and Protestant, whose lives for many years have been merged into that of the Chinese community in which they live and work. Having said this, I am not willing to sit silent while Mr. Bennett damns those other Protestant missionaries who conceive it their function to assist the thinking portion of the Chinese people in their troubled transition from the mediæval to the modern world.

One of Mr. Bennett's criticisms, that of luxurious living on the part of Protestant missionaries, deserves comment. Such a criticism holds for America as well as China. The principal reason why missionaries should not live as the Chinese do is that, if they did, they would not,

many of them, live. If these persons would not share the high morbidity and mortality rates prevalent among the Chinese, they must live in houses which can be kept clean and fairly cool, which have means for the proper disposal of sewage, and are screened. White persons must, in addition, have vacations and means of relaxation. This applies to all except the rare individuals who thrive on broken rules of health. If a missionary wishes to keep intellectually fit, he must have furlough periods for study. If economy be Mr. Bennett's plea, he should know that preventable sickness and death among missionaries have constituted a much greater waste of money than has the building of modern-style houses and of cottages at summer resorts.

Because the unit of Chinese society is the family, it is surprising that Mr. Bennett has only criticism for the presence of the Christian family in China. Wives and children are an integral part of the Protestant missionary force. Finally, even with living quarters furnished, can a man with children to educate live luxuriously on a salary of four or five dollars a day? That a few missionaries, living in such an expensive city as Peking, have had to supplement their inadequate salaries by selling Chinese products is unfortunate, because it offers a mark for the arrow of the ever-present critic.

WILLIAM G. LENNOX

A voice from the cellar hole.

REDDING, CONNECTICUT

DEAR ATLANTIC, —

Your nameless contributor in the sketch entitled 'Cellar Holes,' in the August issue, gave us a slight start, causing my sister and myself, at sixty plus, to feel for the moment at least a hundred and fifty years old! Cellar holes, as the writer gently intimates, are associated in the mind with crumbling gravestones and by no means with continuing activity in the field of letters (or, indeed, in any other). Nevertheless, while our dear childhood home is now one of New England's sadly beautiful abandoned farms, and the Dutch colonial cottage, with its great central chimney inhabited by mysterious soot-winged chimney swifts, its many fireplaces, all-enveloping Virginia creeper, and sheltering maples (*not* beeches), has become only a memory, even to the shining flight of white marble steps from the 'Goodale quarry' under the mountain, yet the 'Goodale sisters' are still very much alive.

I wish that your contributor had known my sister Dora Read Goodale's recent volume of poems, *The Test of the Sky*, of which the name poem appeared a few years ago in the *Atlantic*. As for me, having brought up my family of six (not seven) children, I am writing and publishing

fiction (or poetry disguised as fiction), and my *Luck of Oldacres* is soon to appear under the Century imprint. So much for the sequel to 'Cellar Holes'!

ELAINE GOODALE EASTMAN

They have no pollywogs in Porto Rico.

SAN JUAN, PORTO RICO

DEAR ATLANTIC, —

On page 284 of the August *Atlantic* I note that Paul Griswold Howes 'discovered a kind of frog that has simplified its existence to such a point that the pollywog stage has been quite eliminated.' I believe that Karl Patterson Schmidt discovered such a frog in Porto Rico in 1919. He was sent here by the American Museum of Natural History to make a herpetological survey of the island.

While he was at his task he found on El Yunque a frog that laid tiny transparent eggs in which could be seen the already developed babies whom fate had spared the tadpole stage. I well remember how our house fairly crept and crawled with specimens brought in by two greatly interested small sons; and particularly the astonishment of us all when Mr. Schmidt produced his vial of transparent eggs with the midget frogs sitting in state therein.

ANNE H. WALL

The far-flung *Atlantic*.

GREENE, N. Y.

DEAR ATLANTIC, —

The unique uses to which numerous fated copies of the magazine have been put tempt me to send this letter of appreciation.

Our copies of the *Atlantic* have a quite extended *sub* circulation. For instance, the first six copies of 1928 were read by seven persons, having visited four households. When they come back to me, they, with several other magazines, will go to a leper hospital in South India, following their predecessors of the last five years. There they will be read by missionaries and other members of the hospital staff, then passed out to those patients who are able to read and understand them. Following this, the magazines are used as textbooks in English classes conducted by leprosy patients who have had advantages of higher education.

Was R. W. E. speaking ironically or prophetically when he wrote in his diary, in 1857, concerning the new magazine, *Atlantic*, 'A journal is an assuming to guide the age — very proper and necessary to be done, and good news that it shall be so — But this journal, is this? Has Apollo spoken?'

GRACE J. RUSSELL